

AUG 6 - 1927

MOTOR AGE

A Chilton Class Journal Publication
Published Weekly August 4, 1927

The Little Custom Jordan offers dealers an immediate opportunity to profit by the increasing demand for a small motor car of unquestioned quality—that will stand up and keep going as only a fine car can—that rides better than anything you have ever driven—of custom design—with an extraordinary ability to outperform the other fellow.

THE JORDAN MOTOR CAR COMPANY, INC., CLEVELAND, OHIO

HUPMOBILE DEALERS MAKE MONEY

**\$258,000 Gross Sales on \$4,000 Capital
Their First Year's Record**



D. L. Decker



E. Bell

"Our bankers consider us one of the three best automobile accounts on their books. We believe this is true in most cities where Hupmobile is sold due to the confidence of banks in Hupmobile methods and policies."

D. L. DECKER,
Decker & Bell, Inc.
Montclair, N. J.

Dealers or other businessmen interested in reports from Hupmobile dealers in their own vicinity may secure this information by writing the factory.

When D. L. Decker and E. Bell obtained the Hupmobile franchise for Montclair, N. J., late in 1924, their assets included \$4,000 and a boundless enthusiasm for the Hupmobile product.

Mr. Decker had formerly managed the Hupmobile branch in Montclair, and Mr. Bell had several years' experience in motor car service work.

The combination proved a winning one. In the first twelve months, 109 Hupmobiles were sold, including 58 Eights. Profits ran above \$12,000, after their own salaries and expenses had been met. In 1927, their contract calls for 200 Hupmobile Eights and Sixes.

It will pay you to investigate the Hupmobile opportunity in your own locality. Contract details will be gladly sent on request.

HUPP MOTOR CAR CORPORATION
DETROIT, MICHIGAN

HUPMOBILE
EIGHTS & SIXES



THE NEW MOON LINE



The 1928 Moon "6" • • Diana "8"

Custom-Style Bodies Can Now Be Had For The
First Time at These Low Prices

In the Moon 6-60 from \$ 995—\$1295

In the Moon "A" (Six) from \$1195—\$1545

In the Diana Straight "8" from \$1595—\$1995

And that's only half the story. The ten units that tell the story of any car's quality, in the Moon and Diana are each and every one, the product of the world's most famous specialists with \$75,000,000 in assets and parts and service depots all over the world.

Continental Motor
Delco-Remy Starting &
Lighting & Ignition
Lockheed Hydraulic 4-
wheel brakes

Borg & Beck Clutch
Ross "finger-tip" steering
Fedders Airplane Radiator
Warner Transmission
Columbia Noiseless Axles
Timken Roller Bearings
Spicer Universal Joints

Compare these 1928 Moon and Diana models—style for style, unit for unit, with anything in a similar price field. Compare the Moon franchise for profit making possibilities and complete control of your own business.

MOON MOTOR CAR COMPANY , SAINT LOUIS , U. S. A.

Here's a Jack with **SPEED**

HOLMES CANTILEVER JACK

is the snappiest, speediest jack on the market.

It doesn't make a particle of difference how rushed you are, how difficult or unusual your lifting job may be, the Holmes Cantilever Jack is right there—a jump ahead of you.

Put it to the hardest test. Discover what real jack performance means. Try it in the worst cramped quarters, under the lowest, heaviest car in town. Simply pump the handle—any position—any length stroke, and that car will rise like a miracle—sure, steady, speedy. A range from 6 to 17 inches.

When you're ready, lower it with one hand. No pawls to operate. No strain on handle. No back lashing. In all your experience you've never seen anything to compare with the downright efficiency of the Holmes Cantilever Jack.

Ask your Jobber for demonstration, or write for special jack folder.

PRICE \$38⁰⁰

SIMPLE!

To lower jack pull out this button and pump handle—that is all there is to it—stroke is not limited to definite positions of handle—you simply pump it up and pump it down.



ERNEST HOLMES COMPANY

Chattanooga

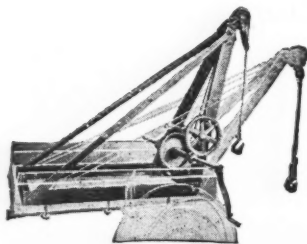
Tennessee

MODERN EQUIPMENT *pays*

HOLMES WRECKER No. 110

You'll find this powerful and efficient crane type wrecker a profitable business builder.

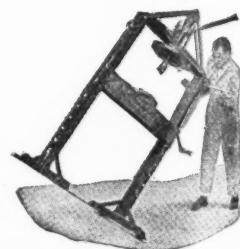
It is light enough to mount on your trouble car for lightning service, yet powerful enough to bring a 4 ton wreck to your shop for profitable repairs. The patented Holmes Swivel permits a pull from any angle, eliminating blocking traffic; it has two speeds and is operated from the ground by one man.



Price, Complete, \$95.00

HOLMES GARAGE PRESS

Has all the rugged power and unusual efficiency you naturally expect from Holmes Equipment. A combination arbor and heavy duty forcing press with a high speed capacity of 4,000 pounds and a low speed capacity of 60,000 pounds. Bolster quickly adjusted by simple hoisting mechanism. All levers right hand operated. Can easily be rolled about the shop.



Price, Complete \$110.00

MOTOR AGE

Reg. U. S. Pat. Off.
Established 1899

Vol. LII

No. 5

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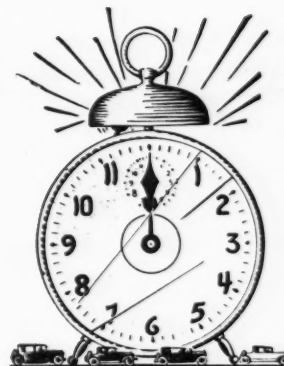
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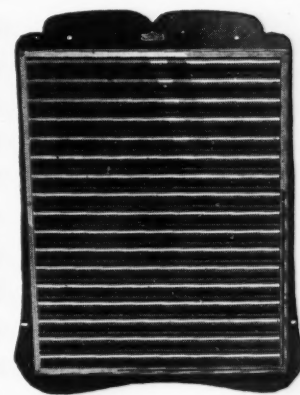
We'll wake 'em up!

Car-owners will be fully awakened to the advantages of Vernay Shutters this season.

We have prepared a powerful advertising and merchandising program, backed by novel, striking folders, broadsides, posters, window displays, counter cards, etc.—all in color.

We shall tell car-owners, at the place where they buy car-things why they should install Vernay Shutters; and tell them in such a convincing way that a large percentage of them will buy.

The cream of the shutter business comes to the top in the first few weeks of cold weather. Be prepared for it. Order at least from 50% to 75% of your estimated requirements *now*. We can only promise full protection on deliveries to those who order early enough.



OLDSMOBILE

Place your order with your jobber immediately.

Vernay shutters are made for all cars
Retail prices \$5.50 to \$12.00

Laminated Shim Co., Inc.
216 Fourteenth St. Long Island City, N. Y.

VERNAY SHUTTER



Announcing The

OAKLAND

ALL-AMERICAN SIX

ALL-AMERICAN—that's the word! No other word describes it!

★ ★ ★
American design. American lines. American endurance for the roughest American roads. Proved on General Motors' great American proving ground and built by American workmen using American precision-production methods!

★ ★ ★
A bigger, better, brilliantly beautiful car. New bodies by Fisher—new chassis—new engine. New standards of performance, endurance and value—and . . . **NEW LOW PRICES.**

★ ★ ★
In the chassis—new factors of reliability and endurance—factors that people have long hoped to get—but never in a car of Oakland's price.

★ ★ ★
A longer, deeper, heavier frame more rigidly braced. A new and softer clutch. A new and smoother transmission. New elements of steering ease, 4-wheel brakes. Smaller wheels (19"), larger tires (29 x 5.50"), a longer wheel-base (117"), and an exceptionally low center of gravity.

And a new engine—the largest used in any car of Oakland's price—212 cubic inches displacement. A 78½-lb. crankshaft, counterbalanced and incorporating the Harmonic Balancer—a crankcase of bridge truss construction—Oakland's famous rubber-silencing principle—and a new combustion chamber design from General Motors' Research laboratories.

★ ★ ★
Now the Oakland-Pontiac Double - Profit Franchise assumes a new high value. And now it is being more persistently sought than ever before. If you are interested in the selling agreement which includes both the All-American Six and the Pontiac Six, write Dept. C --. Thousands of dealers are writing, so act without delay.

NEW LOW PRICES

2-Door \$ **1045**
Sedan

Landau	\$1045	Cabriolet	\$1145
Coupe	-	4-Door	-
Sport	\$1075	Sedan	\$1145
Roadster	-		
Landau Sedan \$1265			

The New and Finer Pontiac Six, \$745 to \$925. Pontiac Six De Luxe Delivery, \$585 to \$770. All Prices at Factory. Delivered prices include minimum handling charges. Easy to pay on the liberal General Motors Time Payment Plan.

OAKLAND MOTOR CAR CO.; PONTIAC, MICHIGAN



The automotive department store of John O'Day, H. R. Allen and A. F. Zander in Merrill, Wisconsin

"A profitable part of our business . . ."

MERRILL is a town of 8068 population in the lumber district of northern Wisconsin. Here in August, 1921, Allen & Zander obtained the Studebaker franchise. During the remainder of 1921 they sold four cars. Now their new car sales consistently average more than five cars a month.

"The famous Studebaker Used Car Pledge is a very valuable portion of the Studebaker franchise," declared F. D. Fritz, manager. "It makes the used car department a profitable part of our business because our Pledge-backed cars are always in demand.

"Our new car sales have practically

doubled since Studebaker introduced its new Commander models—and the new Erskine Six models widen our market greatly.

"The first thought of The Studebaker Corporation seems to be, 'our dealers must make money.' I am, and always hope to be, a Studebaker dealer."

If Studebaker is inadequately represented in your locality, or not at all, write us today regarding the sales rights for your territory. Your inquiry will be held strictly confidential. Address Department 51; Studebaker Corporation of America, South Bend, Indiana.

STUDEBAKER

ERSKINE SIX

Two franchises in one—offering cars from \$895 to \$2250





Dealers profit as never before

AMONG Pierce-Arrow's family of dealers are many who have been with the Company for upwards of twenty years.

These "old guard" dealers command attention when they say that Pierce-Arrow sales during the first six months of 1927 are without precedent. They know.

Recent price reductions on several of the most popular *Series 80* models have helped, of course. But price alone is not the reason for this greatly increased demand.

Convincing performance and low upkeep records, being spontaneously circulated everywhere by hundreds of *Series 80* owners, is helping.

The dignified, aristocratic beauty of Pierce-Arrow's hand-made bodies appeals to many—in contrast with flashy, giddy present-day styles.

But, chiefly, this phenomenal progress, coming at a time when sales competition is the keenest in many years, proves the high regard in which the name Pierce-Arrow is held in the public mind.

A product built by Pierce-Arrow—be it the luxurious *Series 36* car, the beautiful *Series 80*, the powerful Pierce-Arrow Heavy Duty, Worm Gear Drive Truck—or the palatial Pierce-Arrow six-cylinder Bus—is "accepted" as a *quality* product.

Price reductions in no way alter the high esteem of the public.

Pierce-Arrow dealers are today reaping the fruits of Pierce-Arrow's twenty-six years of adherence to highest ideals—and of a traditional respect for *Pierce-Arrow quality* which even fiercest opposition cannot dislodge from the public mind.

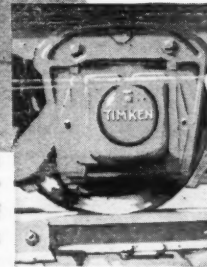
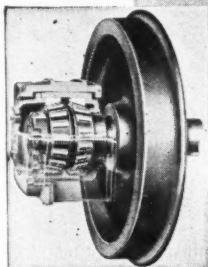
With prices the lowest in Pierce-Arrow history—with the market virtually doubled—and with the demand for Pierce-Arrow products stronger than ever—dealers in small as well as large centers are profiting as never before.

Where Pierce-Arrow is not adequately represented, negotiations will be entered into with people of standing and responsibility. Write or wire.

THE PIERCE-ARROW MOTOR CAR COMPANY
Buffalo, N. Y.

PIERCE-ARROW





International Newsreel

Viewing a Timken railroad bearing application on display in the baggage car of the "Pioneer Limited." From left to right: President H. E. Byram of the Milwaukee Road; Mr. H. H. Timken, President of The Timken Roller Bearing Company; Mr. J. T. Gillick, Chief Operating Officer of the railroad; General Passenger Agent W. B. Dixon; and the Engineer of the train, Mr. Nicholas Kaiser.

Railroad History in the Making

A new epoch in railroad history dates from May 21, 1927. On that day the "Pioneer Limited" of the C. M. & St. Paul R. R. entered regular service with every car on Timken Tapered Roller Bearings. A few weeks later the "Olympian," also completely equipped with Timken Bearings, started schedule operation between Chicago and Seattle.

Never before, anywhere in the world, have any anti-friction bearings been used throughout any Pullman train. These famous flyers of the Milwaukee Road

are destined to make momentous and enduring railroad history.

The 88% reduction in starting load due to friction elimination only begins to express the value of Timken-equipped car journals. Eliminating wear, hot boxes, and by far the greater part of lubrication costs, Timken Tapered Roller Bearings with their tapered design, Timken-made Electric Steel and *POSITIVELY ALIGNED ROLLS* have brought a new day in the whole field of railroad economics.

THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO



Ask your WEED jobber for some of these summer trip reminder cards. They attract sales—they remind your trade of summer needs.

Do not pass up Summer Sales on "The most profitable of all accessories"

Remind your customers that no summer trip is safe without WEED Chains in the car, ready to put on the moment roads become wet and slippery. Muddy detours and slippery roads follow every summer rain—and many an otherwise well-planned vacation is ruined for lack of traction.

Display your WEED Chain selling

helps. Put them up where your customers will see them. Remember, WEED Chains are the *most profitable of all accessories*.

AMERICAN CHAIN COMPANY, Inc.
Bridgeport, Connecticut

In Canada: Dominion Chain Company, Limited
Niagara Falls, Ontario, Canada

District Sales Offices: Boston Chicago New York
Philadelphia Pittsburgh San Francisco



WEED CHAINS

MOTOR AGE

VOLUME LIII

Philadelphia, Pa., Aug. 4, 1927

NUMBER 5

Buckman Chief of Regional Shows

Cleveland Trade Group Manager Will Handle All Details of Exhibits

PROGRAM EXTENSIVE

CHICAGO, Aug. 2—Herbert Buckman, manager of the Cleveland Automobile Manufacturers and Dealers Association, has been selected by service shop equipment manufacturers to handle all the central bureau and promotion details of the shop equipment exhibits at the 1928 regional automobile shows.

Mr. Buckman's appointment was decided on at group meetings of the manufacturers recently held in New York and Chicago, at which most of the shop equipment builders who participated in last winter's exhibits were present.

There is every prospect that working shop equipment exhibits will be staged by jobbers in the automobile shows in Philadelphia, Baltimore, Tampa, Buffalo, Detroit, Cleveland, Louisville, Cincinnati, St. Louis, Kansas City, Milwaukee, San Francisco and Los Angeles next year, with a possibility of other exhibits in Columbus, Minneapolis and Dallas, Tex.

Plans are already under way to start the whole show program much earlier this year, so that they will be better in every way, and may be promoted in a way that will bring out a maximum of attendance.

Crawford Assists Hunt

DETROIT, July 25—The appointment of J. M. Crawford to the newly created position of assistant chief engineer of the Chevrolet Motor Co., was announced today by O. E. Hunt, vice-president in charge of engineering.

Mr. Crawford has been for 21 years an automotive engineer, and, six years previous to taking his new position he was chief engineer of the Auburn Automobile Co., of Auburn, Ind.

Bill Gow Resigns

NEWARK, N. J., Aug. 1—William G. Gow, who is recognized throughout the industry as an authority on flat rate prices and organizations, has resigned his position as general service manager of the Studebaker Sales Corp., Newark, N. J., to accept a position with the System Brake Corp., 54 Sussex Ave., in the same city.



Herbert Buckman, recently appointed to handle all central bureau and promotion details of 1928 Regional Shows

Ford Halts Sales of Independent

DETROIT, Aug. 1—Ford automobile agents said today that they had received notice from the Ford Motor Co. to discontinue taking subscriptions for the *Dearborn Independent*, the Ford magazine.

Several of the dealers also said the letters directed them to return money recently received on subscriptions.

Officials of the Ford Motor Co. would neither confirm nor deny the report.

"Save-A-Life" Move Highly Successful

ACCLAIMED as the biggest public service ever performed by the automotive trade, the A. E. A. Greater Market Development's Save-A-Life campaign, which has had its initial tryout in New York State, will close Aug. 6.

During the period from July 18 to Aug. 6, it is estimated that nearly a million and a quarter automobiles and trucks will have been inspected.

Ford's New Car in Low Priced Field

Manufacturer Expresses Belief That Latest Product Will Outsell Model T

READY IN FEW WEEKS

DETROIT, Aug. 2—Henry Ford celebrated his 64th birthday, Saturday, with the declaration that he believes his new automobile will prove even a greater success than the Model T. "Details of the new car will be announced within a few weeks," he said. Mr. Ford smiled while discussing the many Ford rumors.

"We have taken time to design and build this new Ford car so it will be just what a good automobile should be in this day. We built 15,000,000 Model T cars in 19 years, and we expect to build many more than 15,000,000 of the new cars in much less than 19 years.

"For several years we have been experimenting with new and improved types of automobiles and we have actually built many experimental jobs. It is one thing, however, to build experimental models in a laboratory and another very different thing to retool the biggest manufacturing plants in the world for the producing of the new models. There's the matter of price, for example. We did build this new Ford car to fit a price, but we certainly are not abandoning the low-price field."

Peerless Names Two

CLEVELAND, Aug. 4—Appointments of new branch managers in both Detroit and Washington have recently been announced by the Sales Department of the Peerless Motor Car Corporation, of Cleveland. J. G. Reynolds succeeds R. M. Mosher at Detroit, while W. L. McCutcheon succeeds Bruce Livie at Washington.

Mr. Reynolds has been with the Detroit branch since 1922, latterly as retail sales manager. He has been in the automobile business since 1907.

Mr. McCutcheon started his automotive career with the Chicago Motor Car Co., one of Peerless' early distributors.

Hughes with Studebaker

SOUTH BEND, Aug. 2—Studebaker has appointed James R. Hughes chief body engineer. Mr. Hughes comes to the Studebaker Corp. with a record of 14 years' service as engineer with Ford and Lincoln.

2000 May Attend G.M.C. Institute

Fall Enrolment at Technical School Expected to be Record Breaking

FLINT, Aug. 2—It is expected that the General Motors Institute of Technology, which was recently dedicated by General Motors Executives, will have an enrolment of approximately 2000 students when the fall term opens.

The institute is the outgrowth of educational work which has been conducted in Flint for a number of years by the Industrial Mutual Association, a club made up of thousands of Flint factory workers. The school, which offered spare time education to men in the shops, proved so successful that about a year ago the corporation offered to take it over and house it in the beautiful new building which has just been completed.

It is claimed that the institute is the only chartered school of technology in the world fostered by a corporation and officered by the working forces in the factory. It is under the supervision of Maj. Albert Sobey, director.

(Turn to page 14, please)

Graham Predicts Good Two Months Business

DETROIT, MICH., Aug. 3—August and September should prove a strong sales period in the automobile market, declared Robert C. Graham, vice-president of the Paige-Detroit Motor Car Co., upon his return here from a tour across the continent visiting Paige dealers.

The new executive of Paige, which company is now under ownership control of the three Graham brothers, pointed out that spring and summer were at least a month late in arriving.

"This should mean that sales ordinarily made in the earlier part of the season will be registered during August and September," he said. "Other conditions I found as good as could be expected."

Mynatt Made Branch Head

ASHEVILLE, N. C., Aug. 3—Ewing G. Mynatt, Knoxville, Tenn., has been appointed manager of the local wholesale branch of the International Harvester Co.

Cullen Promoted by Columbia

PORTLAND, ORE., Aug. 2—Columbia Tire Corp. reports a reorganization of the various departments which includes the promotion of J. F. Cullen to position of manufacturing manager.

Coarsey Co. Moves

TAMPA, FLA., Aug. 2—W. B. Coarsey Co., local distributor for Paige, has moved into larger quarters at 708 Madison Avenue. W. E. Mitchell is in charge of the sales organization.

Handsome Jim Kennedy Leaves Goodyear

JAMES T. KENNEDY, who has been selling Goodyear tires since—how long ago was that first sale, Jim?—has resigned his position as manager of manufacturers' sales for the Goodyear Tire & Rubber Co. to become vice-president in charge of manufacturers' sales of the Mason Tire & Rubber Co. He will open headquarters in the General Motors Building, Detroit.

Jim Kennedy joined Goodyear in 1912 at Boston. Later he was transferred to Akron and, in 1914 to Detroit, where he has been ever since, with the exception of a period during the war, when he contacted government purchasing departments and manufacturers with government contracts at Washington.

He brings to the new job an intimate knowledge of the trade and an acquaintance that is wide.

J. A. Bohannon Promoted

INDIANAPOLIS, Aug. 1—J. A. Bohannon, purchasing agent of Marmon Motor Car Co., has been promoted to the position of assistant to H. L. Purdy, vice-president, in charge of production.

Bergerding Nash Agent

NEW ALBANY, IND., Aug. 1—The Bergerding Motor Car Co., 413-415 East Spring St., New Albany, has taken the agency here for Nash cars and is now stocking with a complete line of the 1928 models, in three series, Standard, Special and Advanced.

Salesology

As Banker Khan, bought a sedan,
Said he to salesman Sloop,
"You're satisfied?"
But he replied,
"When I've sold your wife a coup."



Chandler Dealers See New Models

Black, Goldsmith and Mulford of Corporation Show 1928 Models to 200

BOSTON, Aug. 3—New England dealers and their sales managers to the number of 200 visited Boston recently as guests of Vice-President Sid Black of the Cleveland-Chandler Corp., Harrison Goldsmith, sales manager, and Ralph Mulford, representing the service department, were also in attendance. Fred A. Hoover, manager of the Boston branch, arranged the conference which began with a luncheon at the Hotel Kenmore at noon. When this meal was finished Mr. Black was introduced and he explained the remarkable success Chandler has had in the past year, and the increase in its general business, particularly in New England. He outlined the policies of the company for 1928 and explained the plans for distributing the new line. He said that distributors everywhere who had been to the factory recently were delighted with the new model and that orders were coming in at a very satisfactory rate.

Mr. Mulford explained the mechanical improvements in the new line and told of some of the tests the cars had been put through before they were acceptable to the sales department. Mr. Hoover then brought the meeting to a close by inviting everyone to adjourn to the salesrooms to see the new lines.

Willys-Overland Will Return \$1,000,000 in Bonds

DETROIT, Aug. 2—Willys-Overland, Inc., as of June 30, showed more than \$15,000,000 in cash. The company will retire \$1,000,000 in outstanding bonds on Sept. 1, and \$745,512 of preferred stock was to be retired at the end of July. The company will have a minimum of engineering expenses this year, John N. Willys, president, said, owing to its developments in the light car field a year ago.

Alfred Reeves Returns

NEW YORK, Aug. 3—Alfred Reeves, general manager of the National Automobile Chamber of Commerce, returned to this city July 29 on the Aquitania, after covering the conference of the International Automobile Chamber of Commerce at Stockholm and the International Automobile Manufacturers in Paris.

McFarland Battery Co. Moves

RITZVILLE, WASH., Aug. 2—McFarland Battery Service station has moved into a new large concrete and frame building. The building formerly occupied by the battery station has been sold.

Chevrolet Output Nears High Mark

July Production Brings Volume for First Seven Months Close to Record

DETROIT, Aug. 2—Chevrolet production for July raised the total volume for the first seven months of this year to nearly on a par with its entire output for 1926, in which year Chevrolet established an all-time production record for the manufacture of gear shift cars, according to figures released today by the Chevrolet Motor Co.

Production for the month just ended totaled 89,569 units as against 50,993 units for July, 1926, an increase of 75.65 per cent. This percentage of gain over the corresponding month of last year was greater in July than in any other month so far into 1927. The next highest month was February, when this year's figures revealed an increase of 67 per cent over February, 1926.

July volume brings production for the first seven months of this year to 697,318 units, whereas in the entire year of 1926 the total volume was only 728,697 units, indicating that at the present rate of output the figures for last year will be passed before August gets fairly under way.

Chevrolet officials were confident, in view of this extraordinary showing, that by the close of the year the total volume for 1927 would approach very closely to the million mark. The great Chevrolet factories are running day and night to accomplish this tremendous volume and to meet the steadily growing public favor which "The Most Beautiful Chevrolet" is everywhere commanding.

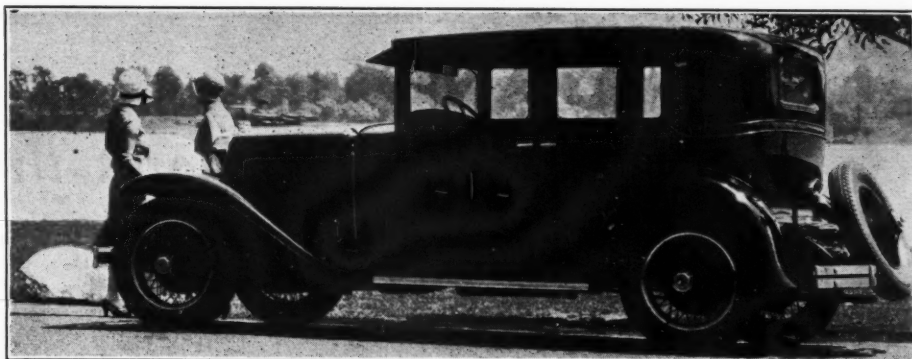
Hand-in-hand with this gigantic production schedule are new projects. Ground was recently broken for two new buildings to stabilize the facilities of the factory at Flint, Mich. A new office building and a new parts building are being erected at a cost of \$2,000,000. Work is being rushed so that both buildings may be ready for occupancy by Oct. 1.

30 Prepare for Race at Louisville Track Aug. 7

LOUISVILLE, KY., Aug. 1—Thirty or more fast racing cars are being groomed and tested for the four races to be held at the Louisville Motor Speedway Aug. 7. The first two races will be 10-mile elimination events, the third a five-mile race and the fourth 25 miles. The last race was put on July 4 and attracted much interest.

Winterfront Dealers Meet

BOSTON, Aug. 2—From all over New England some 75 agents and salesmen operating under W. J. Connell,



LaSalle Town Sedan

Another addition to the LaSalle line of body types is this Fisher-built, five-passenger town sedan, a smart closed car with close-coupled seating arrangements and excellent appointments

New England distributor for Pines Winterfront, came to Boston today for a dinner and meeting preparatory to making plans for the annual winter campaign of this product.

Quarter Million for Garage

ROCKFORD, ILL., Aug. 3—A quarter of a million dollar automobile storage plant will be erected at North Main and Wyman Sts. this fall by a syndicate of local men headed by Eugene L. Hall, who will be manager of the new enterprise. The property site, already purchased, is 66 x 56 ft. and will be five and a half stories high, the floors connected by stagger ramps, rotary lifts for greasing, passenger elevators, and continuous belt elevators.

Storage space for 350 cars will be provided and all modern conveniences for automobile storage and service will be embodied in the new building.

It is planned to have the work completed by December 1.

Graulich Auto Sales Co. Moves

EVANSVILLE, IND., Aug. 2—The Graulich Auto Sales Co., Chrysler distributor, 402-408 South Fifth St., has leased the former Phillips-Dishman Motor Co. building at 418-420 South Fifth St. as its new car sales and service department. Edward W. Graulich is manager.

Cameron Buys Oakland Agency

DALLAS, TEXAS, Aug. 4—The Oakland Motor Car Co. of Dallas has been sold to Walter C. Cameron and associates and the name of the concern changed to the Cameron Motor Co. The company is handling the Oakland and Pontiac lines.

Plans New Plant

MEMPHIS, TENN., Aug. 2—The Southern Motor Car Co., Cadillac and LaSalle distributors, now at Monroe and Lexington, has perfected arrangements for a modern plant at 1109-1115 Union Ave. The new structure, to cost around \$150,000, has been planned.

Goodrich Earnings Show Big Increase

AKRON, Aug. 3—B. F. Goodrich Co. reports \$7.62 a share earned on the common stock in the first half of 1927, after preferred dividends, as against only 11 cents a share on the common in the first half of 1926, net income rising to \$5,813,501 from \$1,358,616. Net sales for the half year exceeded \$69,000,000.

Regular quarterly common and preferred dividends were declared.

Sam Fulton Relected President of Gideons

MILWAUKEE, Aug. 3—Samuel A. Fulton, president of the Fulton Co., West Allis, suburb of Milwaukee, manufacturer of automotive equipment, has been reelected president of the Gideons, the Christian commercial travelers' association, at the recent national convention in Indianapolis.

During his first term last year the Gideons placed 100,277 Bibles in hotels of America, China, Japan and Korea.

C. C. Cooper Made Chairman

NEW YORK, Aug. 4—At a meeting of the board of directors of General Exchange Insurance Corp., C. C. Cooper, who has been president, was elected chairman of the board. Livingston L. Short, formerly vice-president, was elected to succeed Mr. Cooper as president. In addition, P. M. Hinrichs, manager of the underwriter department of L. L. Lukes, was elected vice-president.

Clark Oakland Distributor

MEMPHIS, TENN., Aug. 3—The Clark Motor Co., headed by John B. Clark, at 972 Union Ave., has been made distributor for the Oakland-Pontiac line at Memphis. Mr. Clark, president of the new company, was for several years a factory representative of the Oakland Motor Car Co. in the tri-states territory.

Chryslers Win in African Hill Climb

With Other American Entries Take All Firsts at Big Transvaal Meet

DETROIT, Aug. 3—What Chrysler officials regard as being in many respects the most signal triumph of the many their cars have won in foreign lands was scored in the 1927 Mulder's Drift hill climb of the Transvaal Automobile Club, according to detailed advice just received at the Detroit offices of the Chrysler Corp.

The official score sheets record the entry of a large number of cars of both American and European make in the contests. While Chrysler stands out as the leading name among the winners, it is noticeable that in not a single event of the day was anything but an American car recorded in the first three places, and only one European entry was able to finish as far up as fourth.

This hill climb ranks as the outstanding meet among all South African automobile sporting fixtures, and the reports show that Chrysler cars fairly swept the boards, landing five first places, three seconds, two thirds, two fourths, one fifth and one sixth. Chryslers won every event in which they could enter.

Four of the five first prizes went to George Harper, whose victories in last year's hill climb had already brought him so close to permanent possession of the handsome trophies offered in these annual trials that this year he was able to clinch his title to two of them. He now holds as his own the magnificent Saker rose bowl, offered for hill climbing competition among both professionals and amateurs, as well as the Chrysler cup, donated for trials in which only amateurs were eligible.

Nashville Jobbers Hold Shop Equipment Show

NASHVILLE, TENN., Aug. 2—The Nashville Associated Automotive Jobbers has finished a successful cooperative accessory, shop equipment and parts show at Nashville, Tenn. Modern shop equipment for garages and service stations was featured, each jobber that is a member of the organization having an adequate display of his various lines.

The show attracted many southeastern dealers to Nashville during the week, and jobbers who took part report a considerable amount of new business.

Standard Products Add Lens

SEATTLE, WASH., Aug. 3—The Standard Motor Products, Inc., 1506-8 Broadway, wholesale distributor of automotive electrical parts and supplies, has been appointed exclusive distributor of the new Lens auto bulb in western Washington.

Questions, Questions, Who Knows the Answers?

BY this time you must know that these are serious questions we are asking each week and they require serious answers. They are not like the riddle that Carolyn Wells lists among the immortal stanzas—

*The man in the wilderness asked of me
How many strawberries grew in the sea?
I answered him as I thought good,
As many as red herrings grow in the wood.*

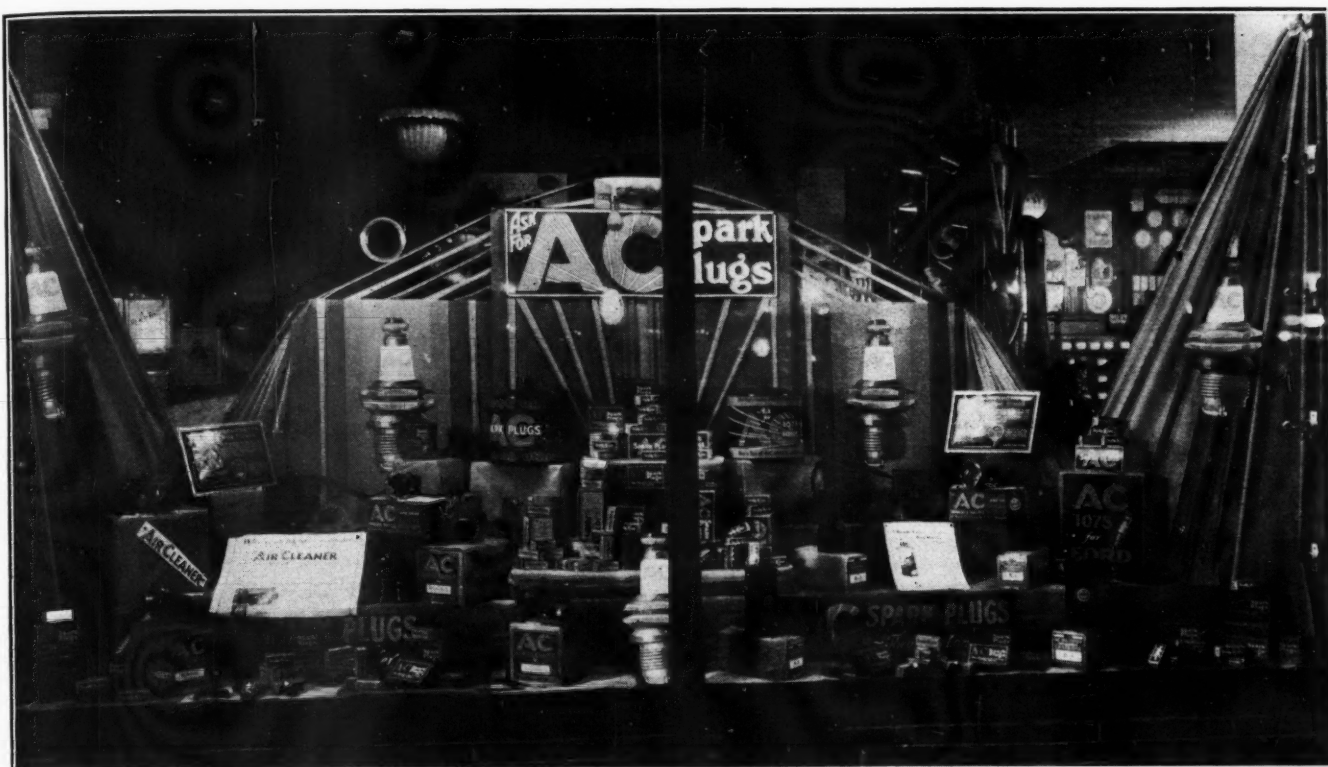
Some of our readers complain that our questions are too difficult. All right. We'll make them easier from now on. Anyone who knows the answers will find the following questions very easy:

1. What automobile uses the slogan, "Standard of the World?"
2. (a) What do the initials "A.A.A." stand for? (b) Who is its president? (c) Who is its treasurer? (d) Who is its secretary? (e) Who is its general manager?
3. In tapping threads, is a full-depth thread important or advantageous?
4. What size drill should be used to give a 75% thread on the following S.A.E. sizes—(a) $\frac{1}{4}$ inch? (b) $\frac{5}{16}$ inch? (c) $\frac{3}{8}$ inch? (d) $\frac{7}{16}$ inch?
5. Should the air pressure in tires be reduced in hot weather? Why, or why not?
6. Does a low oil pressure reading on an engine equipped with force feed lubrication necessarily indicate that the lubrication is inadequate?
7. How many National Automobile Shows have been held in New York City?
8. (a) Name within 10,000,000 square feet the number of square feet of leather used in the manufacture of motor vehicles during 1926. (b) What per cent of the total production of leather was used in motor vehicles?
9. Name within five million the number of automobilists who visited the National Forests during 1926?
10. When will the new Ford be out?

ANSWERS TO JULY 28 QUESTIONS*

1. "This is a Studebaker Year" was a slogan used by Studebaker Corp. of America.
2. (a) The initials "S.A.E." stand for Society of Automotive Engineers. (b) The president is J. H. Hunt, Detroit, Mich. (c) The secretary and general manager is Coker F. Clarkson, 29 West 39th St., New York City.
3. As an automobile is driven up a mountain to a high altitude, the atmosphere becomes less dense and there is less oxygen in a given volume of it. The result is that the ratio of gasoline to air is upset, with an excess of gasoline being used, causing a rich mixture.
4. Boiling water on the top of Pike's Peak, an altitude of 14,000 feet, has a temperature of 185 degrees Fahrenheit.
5. Blue smoke in the exhaust of an engine indicates an excess of oil reaching the combustion chamber.
6. Black smoke in the exhaust of an engine indicates a mixture that is too rich.
7. Following are the facts about the first Vanderbilt Cup Race:—(a) Date, October 8, 1904. (b) Place, Hicksville-Hempstead-Jericho circuit on Long Island, N. Y. (c) Winning car, Panhard. (d) Winning driver, George Heath. (e) Distance, 284.4 miles. (f) Time, 5 hours, 26 minutes, 45 seconds.
8. Walter C. White, president of the White Co., was a race driver until he broke a leg in a track race in Cincinnati.
9. Before engaging in the automobile business, the Peerless Motor Car Corp. manufactured clothes wringers and bicycles.
10. The first National Automobile Show was held in Madison Square Garden, New York, in November, 1900.

* These answers are not guaranteed but are obtained from sources thought to be reliable.



And Here Is Number Two

Window Display Number 2 shows a window that sold a lot of merchandise for Sheridan Auto Supply, Inc., Chicago. When are you going to send us a photo of that good-looking window that paid the rent of your store during the time it was working? MOTOR AGE is published weekly and you won't have to wait long to see how your window looks at the top of a magazine page.

Tom Duggan Returning After Successful Trip

DETROIT, Aug. 3—Tom Duggan, merchandising service director of the National Standard Parts Association, is returning to Detroit after a very successful trip through the East in which he visited jobbers in a number of cities.

His itinerary included such cities as Baltimore, Washington, Philadelphia, New York and Boston. At Rochester he addressed a meeting of the Rochester Garage Owners' Association, July 12, which was attended by 250 garage owners.

Associations Affiliate

WASHINGTON, Aug. 4—An affiliation between the American Automobile Association and the National Automobile Association, whereby the 25,000 members of the latter organization will become a part of the A. A. A. has been announced by the Washington office of the American Association.

Blackhawk Makes Oil Jack

MILWAUKEE, Aug. 2—Blackhawk Mfg. Co. has purchased the Hydraulic Tool Co. of Los Angeles and will market the hydraulic oil-power jacks made by this company through the Blackhawk sales organization. Manufacture of the line will be moved to the plant here, where the new model will be made.

Up to the purchase by Blackhawk the hydraulic jacks have been made and distributed on the Pacific Coast over the

past five years. It is planned to extend this distribution to a nation-wide basis immediately.

Studebaker Reduces Prices

SOUTH BEND, IND., Aug. 3—Price reductions ranging up to \$260 were announced today by the Studebaker Corp. of America on a number of its Big Six and Standard Six models. In connection with the reduction it is stated that there will be no curtailment in the accessories which are standard on these cars and which represent an extra value of \$100.

The new and old prices follow.

Big Six 127-in. Wheelbase

	New	Old
President sedan	\$1,985	\$2,245
President touring	1,795	1,845
President limousine	2,250	2,495

Big Six 120-in. Wheelbase

4-door sedan	\$1,495	\$1,585
Sedan regal	1,625	1,710
4-pass. victoria	1,495	1,575
Victoria regal	1,625	1,645
2-pass. coupe	1,495	1,545
Coupe regal	1,625	1,645
4-pass. roadster	1,595	1,675

Standard Six

*4-door sedan	\$1,195	\$1,245
**4-door sedan	1,295	1,335
4-pass. victoria	1,295	1,325
2-pass coupe	1,195	1,245
4-pass. coupe	1,295	1,345
4-pass. roadster	1,245	1,295

* Plush upholstery.
** Mohair upholstery.

Bendix Appoints Wheels, Inc.

CHICAGO, Aug. 1—Wheels, Inc., New York City, has been appointed service representative and parts distributor for Bendix brakes in the New York territory.

Buick Starts Work on Another Big Building

FLINT, Aug. 2—The Buick Motor Co. has started work on a new \$600,000 building which will house the new engineering, experimental and research department. According to Cady B. Durham, vice-president and assistant general manager, the very latest scientific apparatus will be installed in the structure. Heretofore the various departments have been scattered in the Buick plants and the new building will bring them all under one roof.

Paletou Promoted

ATLANTA, GA., Aug. 3—Leon S. Paletou, for several years in charge of the miniature lamp division of the Westinghouse Lamp Co., has been appointed district manager of the southeastern territory, including the states of Tennessee, North and South Carolina, Georgia, Florida, Alabama, Mississippi and Louisiana.

In this position he will have charge of both miniature and large lamp sales.

Xavier Kessler

DETROIT, July 27—Xavier Kessler, president of the Kessler Sales & Service Co., Chevrolet dealers, and one of the oldest and best known automobile dealers in Detroit, died suddenly at Lake Brevort, in northern Michigan, where he was spending his vacation. He had been identified with the new and used car business for 20 years.

Georgia Dealers to Fight New Tax

Proposed Ruling Would Put an Assessment on All Automotive Sales

ATLANTA, GA., Aug. 3—Dealers in automobiles, motorcycles, bicycles, automobile tires, automobile accessories and lubricating oils will be compelled to pay a 1 per cent occupational tax in Georgia if a measure just introduced in the State Legislature is passed.

The measure, which is being bitterly opposed by automobile, tire and accessory people all over the State provides that an occupational tax of 1 per cent must be turned in on the sale's price of all goods sold in the State. Each year the dealers must register with the comptroller general, giving his name and business address and receiving in return a certificate of registration.

The first of each month, dealers in these commodities must make a report showing the amount of sales made, the amount of the tax, and make a remittance of the taxes due.

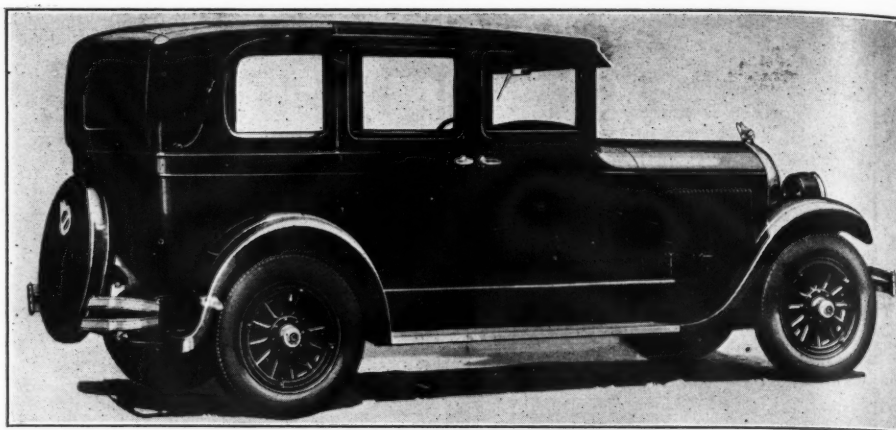
Black, Goldsmith and Mulford in Canada

MONTREAL, Aug. 2—Senior officials of the Chandler Motor Car Co. were entertained to luncheon on Saturday last in the Windsor Hotel by the Canada Motor Car Co., this city, to enable its agents in the Province of Quebec to make the acquaintance of the executives responsible for the manufacture of the automobiles they handle. H. J. Hummell, superintendent of agencies of the Canada Motor Car, presided, and introduced his guests, Sid Black, vice-president of the Chandler Motor Car Co.; Harrison Goldsmith, general sales-manager; Ralph Mulford, director of the experimental department, and the Hon. E. L. Patenaude, who was invited to extend a special welcome to the visitors from the United States. J. S. Picard, general manager of the Canada Motor Car Co.

2000 May Attend School

(Continued from page 10)

The executives of the General Motors Corp. who were present at the dedication follow: Pres. Sloan; Donald Brown, vice-president; Charles Fisher, vice-president; Fred J. Fisher, vice-president; John L. Pratt, vice-president; John J. Rascob, vice-president; C. F. Kettering, vice-president; L. R. Beardslee, secretary of the executive committee; Pierre S. du Pont, chairman of the board; Lawrence P. Fisher, president of the Cadillac Motor Co.; Mr. Strong; A. R. Glancy, president of the Oakland Motor Co.; W. A. Fisher, president of the Fisher Body Co.; I. J. Reuter, president of the Oldsmo-



Chrysler "62" Landau Sedan

Saddle-spring seat cushions, arm rests, ash trays and vanity cases are among the many refinements catering to comfort found in the "62" landau sedan, just announced by Chrysler, and priced at \$1,295

bile Motor Co.; W. S. Knudsen, president of the Chevrolet Motor Co.; Gordon LeFebvre, general manager of General Motors of Canada; Dewitt Page, president of New Departure Co.; H. J. Forsythe, general manager Hyatt Bearings Co.; F. M. Hardiman, general manager Harrison Radiator Co.; H. W. Chapin, general manager Brown-Lipe-Chapin Co.; C. M. Day, general manager Jackson Steel Products Co.; E. G. Biechler, general manager Delco Starting and Lighting Co.; R. S. Lane, general manager United Motors Co.; W. S. Whittaker, general manager Inland Products Manufacturing Co.; C. E. Wilson, general manager Delco-Remy Co.; J. H. Davis, general manager Moraine Products Co.; J. H. Dwight, general manager Saginaw Products Co.; D. O. Thomas, general manager Muncie Products Co.; R. T. Armstrong, general manager Armstrong, Spring Works, Albert Champion, president AC Spark Plug; Paul Seiler, president Yellow Truck & Mfg. Co.; J. B. Jackson, staff manager; Ed Fisher, general manager Fisher Body Co.; J. D. Mooney, president of General Motors Export; Charles F. Barth, vice-president Chevrolet Motors Co.; W. T. Whalen and L. M. Rumely, general managers of General Motors Export.

Bauer Back From S. A.

NEW YORK, Aug. 4—George F. Bauer, secretary of the Foreign Trade Committee of the National Automobile Chamber of Commerce, returned from his South American tour July 29.

Tarrant Co. Changes Name

FORT WORTH, TEXAS, Aug. 1—Interests of Dallas parties in the Tarrant Motor Co. have been purchased and the name of the company changed to Whitehurst Motors, Inc.

Named Pur-O-Lator Distributor

SEATTLE, Aug. 3—Sunset Electric Co. has been appointed distributor for the state of Washington, west of the Columbia River, for Pur-O-Lator.

Chevrolet Dealers Sales Managers Form Group

MILWAUKEE, Aug. 2—Sales managers of the Chevrolet dealers of Milwaukee County have effected a permanent organization to promote uniform handling of sales meetings and to educate further the retail sales organizations in their business of presenting Chevrolet to the buying public.

J. G. Manion, of the Merkle Chevrolet Co., is president, and Glenn Humphrey, of the Hall Chevrolet Co., is recording secretary.

Buys L. F. Weaver Co.

NEW YORK, Aug. 2—Commercial Investment Trust Corp. has purchased the L. F. Weaver Co., San Francisco, one of the oldest finance companies of the Pacific Coast. The assets acquired exceed \$2,000,000. Business of the company will be consolidated with that of the San Francisco subsidiary of Commercial Investment Trust. F. L. and Kent M. Weaver, active heads of the Weaver company, will join the executive staff of the C. I. T. San Francisco office.

Jobbers Add Splitdorf Plugs

CHICAGO, Aug. 2—Ten parts jobbers, none of whom have handled spark plugs heretofore, have been recently added to the list of Splitdorf Electrical Co. jobbers, reports O. W. Smith, manager of the Chicago branch of this company.

Zimmerman Joins Adams

PORTLAND, ORE., Aug. 2—Captain W. Stuart Zimmerman, U. S. Army, retired, has joined the firm of George Adams, Inc., as vice-president, and will assist in the management.

Formed Lake City-Buick Co.

SPOKANE, WASH., Aug. 1—N. W. Lommel and Rob Bobb have been named Buick agents for Kootenai county and have formed the Lake City Buick Co., Inc., with headquarters at Coeur d'Alene, Idaho.

Olds Motor Works Spend \$3,000,000

Expansion Program is Made Necessary By Greatly Increased Sales

LANSING, Aug. 2—The Olds Motor Works has let contracts for buildings in a \$3,000,000 expansion program and work will be rushed on the project so that Oldsmobile production can be increased by the first of the year, I. J. Reuter, president, stated today.

An increase in net sales of \$11,500,000 last year followed by still greater sales records and with business mounting to new high levels, made the program necessary, officials declare. Retail sales for the fiscal year ending Aug. 1, show up to July 20, continued gains.

The buildings will be erected on the 76-acre Oldsmobile plot in Lansing and will increase the total floor space by 292,000 sq. ft., or practically the floor area now used in making Oldsmobile motors, chassis units and for assembly. Total floor space, including the body plant, will be 1,688,092 sq. ft.

Federal Motor Truck Co. Will Increase Advertising

DETROIT, July 26—Federal Motor Truck Co. will increase its advertising campaign in conjunction with its new line of trucks, which gives the company a much wider sales opportunity than formerly. The line, including fours and sixes, is the most extensive Federal has ever offered.

In connection with its advertising campaign the company is promoting sales educational work among its dealers and their salesmen through sales manuals and factory courses in truck selling.

O'Rourke in West

SEATTLE, Aug. 2—T. J. O'Rourke, passenger car sales manager for Pierce-Arrow, was the guest during the past week of A. W. Hauck, manager of Puget Motors, factory branch of Pierce-Arrow. Mr. O'Rourke is making a tour of the West.

Buys Half Interest

BONNERS FERRY, IDAHO, Aug. 4—Evan Northug recently purchased a half interest in the business of the Coeur d'Alene Motors, at Coeur d'Alene, Idaho, and will hereafter take an active part in the management.

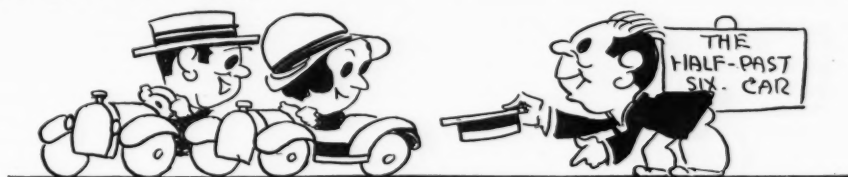
Divco-Detroit Resumes

DETROIT, July 27—The Divco-Detroit Corp. has completed remodeling its factory at 2435 Merrick St. at Sixteenth St. and is now on a quantity production basis on the new Divco truck. The truck is designed for house-to-house delivery work and has three-point control.

CLOSE UP AND LOW DOWNS

By SAM U. L. SPARKS

IF you want to sell automobiles you have got to have someone to which to sell them. Here at Sparks Corners we are shy on population. Practically everybody has been sold a Halfpast Six except here and there you may find a Awful Six which was bought from my contemptuary, Whimpers of Whimpers Garage. But not many.



I am starting the ball a-rolling on the idea of making it fashionable hereabouts to be a two-car family, but in the meantime I took a hint or two from the serious of articles from the well-known pen of John Cleary in regards to Sales Promotion.

From what John said I made out that about two-thirds of promotion is "motion" and the more people you get to see and tell about your car, the more you are libel to sell.

The three counties which is in my territory cover considerable of ground, and it would take me a year to get around to everybody. Most generally people don't buy a car the first time you talk to them about it, so I got to thinking about direct mail with which I could say a word or two every once and a while which maybe would remind a lotta people of the Halfpast Six when they was thinking of buying a car.

They's one thing you gotta admit about a postage stamp, namely, you can depend on it to stick to its job.

The next question was, should it be first class mail or third class mail. Here was a problem for me to analyze and it didn't take me long to decide that third class mail is just that.

I found out that first class mail in the form of a postal card is cheaper than third class mail, and I don't hardly need to tell you why a lotta people now call me Postal Card Sam.

Well, I started mailing a postal card every week. Everybody can read a postal card at a glance, even the postmaster and his wife, so a postal card really gets better circulation than a lotta other mail.

Here's the way it works. I have got 2950 names on my list and that includes every male voter in the three counties which ain't already a member of the famous Halfpast Six Club, after checking out a few cases where they's a son or two still sticking to the old homestead. I decide that at a cost of \$29.50 a week I hadn't ought to keep no secrets about Sparks' Enterprise Garage from the inhabitants.



And believe me, I make them little calls interesting. Every once and a while in the stead of the card I mail something which the factory experts write up in fine language telling all about the Halfpast Six, so I make my cards newsy and no doubt that is the reason some of the highfalutin factory "literature" gets across.

Well anyhow, here is a sample of one of the cards which the Queen in my office typewrote and run off on one of them duplicating machines:

"Banker Stonehammer of the First National here in Sparks Corners last Thursday bought a Halfpast Six Roadster for Mrs. Stonehammer whose extensive activities necessitated a second car. Mr. Stonehammer drives a Halfpast Six Sedan."

The office Queen is a High School graduate and I guess some of the readers will "get" it. I got a coupla other bankers on my list. Some of them has only one car and some ain't got none. I got an idea their wives will have a word or two to say to them before long about how nice a husband Stonehammer is.

Another of my cards said: "Hank Halderman of Stoney Gay traded in his last year's Halfpast Six for a new model. I allowed him \$750 for his car. It's been reconditioned and will go at that price to some careful buyer."

It's getting so that people would rather get their names on one of my cards than in the local Weekly.

Business Gains Throughout Country

A CONSIDERABLE increase in sales of automobiles is looked for during the present month, the main reason for this being the presence on the market of many new models. Better business has been marked since the introduction of models in several lines in July, these coming too late, however, materially to affect the showing in that month.

Stocks of new cars in dealers' hands are reported to be low, with used car stocks also showing steady reduction in most sections.

Reports from cities, which follow, are more optimistic than at any time during the past six months.

KANSAS CITY

JULY sales on new cars have been very satisfactory in the Kansas City territory with light cars showing some falling off. The multiplicity of new models being announced, while creating much interest on the part of the public, also has had more or less of a confusing effect.

Price reductions announced in several cases have more than offset this, however, and virtually all the larger dealers are reporting increases over last year.

SEATTLE

AUTOMOTIVE trade conditions were summed up for July by dealers in automotive trades throughout the Pacific Northwest as being fair. Sales reported during the month leaned to medium price cars.

Summarizing the entire situation, the trade is in the same status that it normally is at this time of year.

Used car dealers report a quiet market.

NEW ORLEANS

SALE of tires and all accessories around 20 per cent off in this territory due to many roads still being impassable from flood waters. Used car market now in fairly good condition here after stocks moved at heavy sacrifice. Sale of new cars 15 to 18 per cent off this month. Believed that anticipation of new Ford car hurting sale in light car field.

Trade in general optimistic as rehabilitation work is going forward rapidly in flooded areas.

DENVER

SMALL cars with the exception of Fords moved well in July in Denver territory and in general throughout the state. There was almost no business in heavy trucks and business in light trucks was less than in June or in July of last year.

Large cars did not move as well as smaller models, but the business done compares favorably with July of last year, and the general tone is one of optimism.

MILWAUKEE

BUSINESS has picked up surprisingly well following display of new models by several large makers, and July passenger car sales are believed to be fully equal to year ago. June sales for State of Wisconsin were 185 cars ahead of last year despite enormous shrinkage in Ford busi-

ness. Every principal make showed gains, to assist Chevrolet increase in keeping total above year ago for a new June record for this territory.

NEW YORK

SALES of new cars in the New York metropolitan district during July held very firm though showing decline from the preceding month. Early indications were that the month would run well ahead of the same month last year. Very favorable reception of new models introduced during the month was noted and dealers reported good buying.

Used car conditions are favorable in the Greater New York district and stocks are being held within readily movable limits.

MINNEAPOLIS

CROP prospects and arrival of new models have stimulated the automobile business in the Northwest. Branches are nearing an oversold condition on some of the new lines and retailers are writing in for more cars. It is evident that the trade is more optimistic as harvest time begins. The used car inventories have been lower than usual in July.

Trade in accessories has not entirely recovered from the spring wet weather depression.

ATLANTA

THOUGH July sales by automotive firms in this district held up fairly well, the total volume of business, judging from reports of the dealers and distributors in Atlanta, appears to have been somewhat less than during the July of 1926, and also below the normal level. However, compared with business during the previous two months sales continued about on the same level.

Most distributors seem to agree that the

outlook for business during the late summer and fall gives every promise of being good.

DALLAS

GENERAL rains followed by excellent cotton crop weather in Texas and parts of Oklahoma, Louisiana, Arkansas, New Mexico and Arizona during July maintained the automotive business along the lines of the preceding month and left the dealers and jobbers in a more optimistic frame of mind. The outlook for the remainder of the year is decidedly better and retailers are laying plans for intensive selling campaigns during the next 60 days.

BOSTON

JULY was a very good month when averages are compared with what had preceded it this year. Sales did not jump to any remarkable degree. Total sales for all cars were not showing a marked increase because of the big hole left through Ford being out of the market practically.

Down through motor row the statement in most of the places each week was that sales were fair and dealers and salesmen look for a steady business during August.

LOS ANGELES

JULY Southern California sales show considerable slump against June and running about 10 per cent under July, last year, but introduction of new models the latter part of the month brought marked stimulus to orders and widespread interest generally, with indications market will regain strength.

Used car stocks increasing though not heavy. Business generally is good. Truck market running under July, last year, with falling off also from June sales. Used truck stocks unusually heavy.

DETROIT

NEW car sales for July, in Michigan, will be considerably below those of a year ago. Sales in Wayne County, including Greater Detroit, are far below last year—a condition due principally to unemployment especially in the Ford factory. Wayne County passenger car sales for the first 26 days were 4164, compared with 7308 units for the entire month last year, according to figures provided by the Detroit Automobile Dealers Ass'n.

Demand for commercial vehicles is similarly affected.

SAN FRANCISCO

AUTOMOBILE sales in this territory for July were slightly ahead of June and considerably better than in July a year ago, in spite of the sales resistance of the vacation period. Price cuts and new models apparently offset this.

Exact figures of registration are not available, but association officials estimate increase at about 10 per cent over June, with Chevrolet and Buick leading the field as in last month. Used car sales show slight improvement.

Every Vote is a Boost

IN another part of this issue is a vote coupon for use in the jobber salesmen's popularity contest.

That efficient jobber salesman from whom you like to buy deserves his popularity—and it should be rewarded.

Help him win one of the cash prizes, which total \$2,075.00.

The Motor World Wholesale jobber salesmen's popularity contest is going to bring honor and distinction to twenty-seven good men—three in each of the nine trading zones. Retailers and garagemen are asked to help them by clipping their coupons, filling them in and forwarding them to Motor World Wholesale.

There is a voting coupon in this issue. Fill it in promptly.

Automobiles May Not Use Ferries

Vehicles Using Gasoline or Similar Fuel Barred From All Boats

NEW YORK, Aug. 4.—The Automobile Club of America Law Committee, of which Pres. Chamberlin is a member, is now in correspondence with United States Supervising Inspector General Dumont, with a view to inducing him to modify his recent decision in the Jamestown (R. I.) Ferry Co. case, in which he held that vehicles using gasoline directly or indirectly came under the ban of Section 4472 of the U. S. Revised Statutes, forbidding the carrying of combustibles in steam or ferry boats run on navigable bodies of water. Under this strict ruling a gasoline vehicle or steam vehicle using gasoline for fuel could not cross a ferry.

The club claims that this would be an unjust discrimination, as kerosene or even nitro-glycerine can be carried when properly protected. The English law requires vehicles driven by or using gasoline to stop their motors or extinguish their fires in transit. This would seem reasonable and sufficient. Doubtless, however, the correspondence between the committee and the supervising inspector general will soon bring about regulations satisfactory to both the automobilers and the authorities.—From MOTOR AGE, August 2, 1900, 27 years ago.

Stutz Seven-Passenger Automobiles at Premium

INDIANAPOLIS, Aug. 3.—As an indication of the trend of the times, Safety Stutz seven-passenger standard sedans and limousines are at a premium. This is according to Sales Development Mgr. C. Alfred Campbell, who reports that the demand has been so great recently that the body builders are under orders to pull their production as far forward as possible.

When the Safety Stutz was first introduced a little over 18 months ago the seven-passenger "jobs" were not included in the first models. From the time of their appearance several months later, however, the demand has been constantly growing until now the entire factory production of these models has been taken until the middle of October.

Day Visits Northwest

SPOKANE, WASH., Aug. 1.—V. H. Day, zone manager for Falcon-Knight, covered the Pacific northwest and inland empire during the past week and while here was the guest of W. W. Trumbell, of the Spokane Auto Co., local distributor.

Jest—A Bit Cynical

By S. G. Swift

WHAT is meant by 'grease-ball'?" asks J. McGinnis. I cannot answer this one with any great degree of authority, with regard to the present meaning of the term, but in the old days a "grease-ball" was an itinerant mechanic who bought his small tool kit at the five-and-ten-cent store and, as a consequence, was always borrowing from the rest of the fellows. But don't take my word for it.

* * * *

MY old friend, Mr. Blissling, whom I have put to the front on many and sundry occasions as authority for anything that I did not wish to stand for myself, is very particular about his cigars. He absolutely refuses to take the word of the clerk as to the freshness, aroma, spiciness, or bouquet of any unknown cigar. He knows the brand he wants and will walk more than a mile to obtain it. The contractor who built Blissling's new service station told me that he was the fussiest man about plans and specifications that he had ever known. And yet Mr. Blissling does not hesitate for a moment to take the word of any itinerant peddler of "unknown" accessories, who throws him the bait of an extra 10 per cent. I mean that he buys his supplies in much the same way that he buys his liquor—anybody with a good story is implicitly believed.

It is solely because of the foregoing that Mr. Blissling's stock-turn is approximately once every 10 years.

* * * *

THIS morning on my way to what, in my more serious moments, I speak of as my "work," I fell afoul of a man wearing a palm beach suit. I have found that it isn't safe to commit one's self to the mercies of these chaps too soon after breakfast, but this one had me up in a corner and was starting to bromide me to death before I became aware of his intention. He had a grievance against a repairman who had charged him for a carbon and valve job that hadn't been done. It was the same old story; of leaving the car at the shop, going back to get it, paying the bill and then finding that the vehicle hadn't been touched.

That, in the inelegant but impressive language of the street, is hooey. I have never seen a college graduate driving a street car, a newspaper reporter lying in the gutter nor an erudite tramp. All that is romance, engendered in the minds of metropolitan penny-a-liners by the necessity of getting something to eat and broadcast as truth, by others with no originality and a natural proclivity for lying.

The story of the repairman who charges for jobs he doesn't do has somewhat the same origin. It never happened to me and I doubt that it ever happened to anyone.

* * * *

I N the eight years that I have been connected with the automotive industry I have never seen the time when so much automobile could be bought for a dollar as right now. Compare today's \$1,500 car with almost any of former years at double the price and the advantage is with the present model. I don't want to hurt the feelings of any of you hard-working peddlers—I'm probably a bit thin-skinned myself if the truth were known—but it seems to me that almost any good salesman should be able to run up a nice total from Aug. 1 until late into the winter.

Of course some of the big boys have been breaking their own records each week for the past six months. But an ordinary salesman—say an ex-life guard or undertaker's assistant—ought to do mighty well from now on.

* * * *

LONG years ago—say about 15 of 'em—a somewhat feeble-minded chap who lived a few miles out in the woods back of my home conceived the brilliant idea of attaching a steam engine to a circular saw and making his everlasting fortune through sawing cord-wood into stove lengths for the populace round about. After weeks of tedious labor he finally assembled the monstrosity and started out, with much clattering and clanking, to do business. Contrary to general prediction the device worked perfectly. It sawed wood with an éclat never before seen in that township, the only drawback being that it could saw only enough wood to keep a fire burning under its own boiler, and regardless of how it was tinkered with, would produce not one stick to, in a manner of speaking, keep the home fires burning.

There are men in the automotive repair business who tell me their troubles from time to time and I am led to believe that many of them are in much the same predicament as the owner of the saw-mill. Something is wrong with any business that doesn't take in enough during the week to pay the help and leave something for the proprietor. It is probable that in most cases of this kind the trouble is caused by lack of merchandising knowledge.

Chevrolet Leads Cincinnati Sales

Twelve Makes Show Increase Up to 500 Per Cent for Month of July

CINCINNATI, Aug. 4—Automotive conditions present a unique situation in the fact that of 42 makes of cars listed for registration in the office of the county clerk, only 12 showed increased sales during the month of July, while with the other 30 decreases ranged from 25 to more than 200 per cent.

The greatest increase in registrations during the month was shown by Davis, while others, notably Chrysler, Essex, Marmon, Auburn, Franklin, Hupp, Reo, Pontiac, Stutz and Willys-Knight showed an increase ranging from 25 to 500 per cent. Peculiar in this connection is the fact that in only four of these cars were new models, or refinements on standard models, factors to which the increase can be attributed.

Naturally, Chevrolet took the lead in the number of cars sold though some of the lesser known cars showed a much greater increase for the month insofar as percentages are concerned. Among the better known cars Reo shows up strongly, with an increase of more than 100 per cent in June as compared with the same month a year ago. The same virtually is true of Chrysler, Essex and Marmon.

Chrysler occupies a unique position in the fact that during the first six months of this year Hamilton County sales show a percentage gain for Chrysler of 100, despite the fact that most makes of cars will show decreased registrations for the period.

Based on conditions for the first six months the consensus is that the total for the year will be considerably below that of 1926 though in individual cases the present year is expected to show an increased volume.

Overseas Trade Will Increase—Stanton

DETROIT, Aug. 2—Donald T. Stanton, manager of export sales for Dodge Brothers, Inc., has just returned from a two months' trip on which he visited Dodge Brothers dealers in more than 25 leading cities in eight European countries. He states that "American built automobiles are gaining in popularity every year and predicts that Europe will take a constantly increasing proportion of the output of our factories."

Acquires More Space

HARTFORD, CONN., July 18—The Colonial Auto Co., Studebaker distributor, has acquired a large portion of the service station of the Arrowhead Corp. and will use it as a used car department.



Earl R. Carpenter

E. R. Carpenter, of Hoffman Co., Los Angeles, elected president of Los Angeles dealer association.

Auburn Among Leaders

AUBURN, IND., Aug. 3—Reports of the first five months of 1927, for the Auburn Automobile Co. show production within 96.3 per cent of the output of the entire year of 1926, according to an announcement just made by E. L. Cord, president of the company.

Conover Sells Interests

SPRINGFIELD, OHIO, Aug. 4—Harry A. Conover, of the Conover-Mapes Co., has sold his interests in the company to C. W. Mapes and has gone to Columbus, where he has assumed the position of sales manager for the Lastro Motor Sales Co., distributor of the Marmon car in the southeastern district of Ohio.



Walter Evans

Walter Evans, general manager of John Doran Co., Spokane, who is also head of the National Air Derby Association.

Stutz Insurance Is Reduced by Lloyd's

London House Makes Drastic Cut, Slashing Rates From 20 to 50 Per Cent

INDIANAPOLIS, Aug. 2—Lloyd's of London, has taken a drastic step in setting its seal of approval on the outstanding safety characterization of the new Safety Stutz by offering to insure at rates from 20 per cent to 50 per cent under the accepted manual rates for practically all types of coverage.

"The action of Lloyd's is gratifying in the extreme," says F. E. Moskovics, president of the Stutz Motor Car Co. of America. "It means more than the saving of a few dollars to each owner of a Safety Stutz. And, by the way, you must actually own a Stutz outright before you can take the revolutionary Lloyd's coverage."

"It really means that our claims of safety—in-built, inherent safety features that entered into the conception and designing of our car—have been stamped 'sterling' by one of the world's greatest authorities on safety. This great insurance company is willing to back its judgment with cash, as we at the factory have gone against the tide of accepted design and produced what we believed to be a model of safer transportation."

"What the future holds forth no one knows but it is fair to assume that Lloyd's action will not be lost upon future design and manufacture of safer transportation."

Becker Cincinnati Flint Distributor

CINCINNATI, Aug. 2—Arthur P. Becker, widely known among Cincinnati automobile dealers and who, for some time, has been active as Hupmobile associate dealer, has taken over the distributorship of Flint and Star cars in this city. He will operate from the Gilbert Ave. salesroom, the home of Stars and Flints for several years, and will set to work immediately to build up an associate dealer organization.

Takes on Peerless

SPOKANE, WASH., Aug. 1—Appointment of the Auto Sales Co. as Inland Empire distributor for Peerless was announced today by J. H. Patton, special factory representative. H. D. Gallaher, for the past seven years in the automobile business here, is head of the Company.

Buy Tarrant Motor Co.

FORT WORTH, TEX., Aug. 2—Interests of Dallas parties in the Tarrant Motor Co. have been purchased and the name of the company changed to Whitehurst Motors, Inc. The new company is handling the Chrysler lines.

Moon Coach Has New Type Body

Fabric Used for Lightness and Flexibility—Construction is Patented

ST. LOUIS, Aug. 4—A radical departure from the conventional type of steel-sheeted automobile bodies is seen in the flexible fabric-paneled body now in use on the Moon six-sixty two-door, five-passenger coach model, a featured member of the company's recently announced 1928 line. The body is patented.

Carl W. Burst, vice-president and works manager of the Moon Motor Car Co., in speaking of the fabric-paneled body said, "In adopting this entirely new type of body for the six-sixty coach model, Moon has anticipated the demand for a light, quiet body. Today fabric bodies are in almost general use in Europe and particularly so in the higher priced cars including the Hispana-Suiza. They are gaining steadily in favor in the United States.

Finished In Two Colors

The fabric-paneled body of the Moon six-sixty coach is finished in a two-color combination of deep woodland green and soft, lustrous French gray. Hood, cowl and belt are green while body panels, upper structure, top and disc wheels are gray. Upper and lower aluminum body moldings are set off with black welt. Fenders, dust aprons and drum-type headlamps are in black enamel, the latter having heavy nicked rims. Sunshade is integral with top.

Adams Promoted

KNOXVILLE, TENN., Aug. 1—E. H. Adams has been appointed manager of the wholesale department of Rodgers & Co., Hudson and Essex distributors, succeeding F. H. Llewellyn, who has been appointed assistant general manager of the company.

Break Ground for Big Fisher Building

DETROIT, Aug. 3—Ground for the mammoth new Fisher building to be erected on Grand boulevard, opposite the General Motors building, by the Fisher brothers, has practically been cleared of apartment buildings and work on the new structure, which is to cost \$35,000,000, will start soon. It is expected that the building will be finished in five years.

115 Per Cent Increase for Gates Rubber Co.

DENVER, Aug. 2—Gates Rubber Co. showed an increase of 115 per cent in export sales in the first six months of 1927, according to F. H. Nassimbene, export manager. Products of the company are now distributed in 52 foreign countries.

Hupp Appoints Hoppe

MILWAUKEE, Aug. 3—The Hupp Motor Car Co. has announced the appointment of the Hoppe Motor Car Co., 3611 Wisconsin Ave., as exclusive distributor of the Hupmobile in Wisconsin and Upper Michigan. The Hoppe company for two years has served as Milwaukee county distributor of the Lincoln. The Hupmobile franchise during the past year was in charge of Chidester-Seward, Inc., Milwaukee.

McClellan With Boling Co.

SEATTLE, WASH., Aug. 2—H. McClellan, long identified in the used car field in Seattle, and formerly of Rowland & Clark, Auburn dealer, has recently joined the I. L. Boling company of 223 Westlake St., north, as sales manager.

Gardner Hangs Up New Fuel Record

Average 23½ Miles to Gallon and Uses ¾ Pint of Oil on 1002 Mile Trip

ST. LOUIS, Aug. 2—Averaging 23½ miles to a gallon of gasoline and using only ¾ of a pint of oil is the remarkable economy mark recently set by a stock Gardner Eight-in-line roadster on a 1002-mile trip from Los Angeles to San Francisco, Sacramento and return, according to word received from the Gardner Motor Co., Inc., of St. Louis.

The Gardner Eight-in-line in which this record-breaking trip was made was equipped with two gasoline tanks, which had been filled and sealed, and which held a total of 45 gallons of gasoline. Instructions to drive 1000 miles just as any ordinary driver would do, were given the driver of the car. The plan was to drive 1000 miles, or as near that mark as possible, without adding gasoline and then drain the tanks to find out how much gas had been consumed. No advance tests were made, and speculation was rife as to whether or not the fuel supply would become exhausted before the car returned to Los Angeles.

Upon the return of the "Go-Getter," as this car was called, the seals on the gasoline tanks were broken, and they were drained. The remaining gasoline, accurately measured, showed that the entire trip had been made on a total of 42½ gallons of gasoline. The crankcase was then drained and it was discovered that only ¾ of a pint of oil had been consumed. The total oil and gas cost was \$8.12.

Acquires Continental Garage

OKLAHOMA CITY, Aug. 2—John Watt, formerly branch manager of the Miller Tire and Rubber Co. here, has acquired the Continental Garage No. 2.

John Cleary Says—

¶ *An automotive dealer who sat and waited for the customers to come in, instead of going out to round them up, heard money talk the other day.*

¶ *He heard it distinctly say, "Good-bye."*

Beautiful Bodies Feature Olds Line

Newest Models Smart and
Colorful With Excellent
Appointments

DETROIT, Aug. 1—New smartness, dash and beauty have been added to Oldsmobile by refinements in body design and line and the introduction of new color combinations. These latest Oldsmobiles are now on display. Despite these improvements and refinements the new lower prices recently announced continue in effect.

The same basic Oldsmobile lines that have proved so popular have been retained by the designers, but by skillful refinements in curve and line additional beauty and smartness have been gained.

New beautiful curves have enhanced the graceful contour of the rear of the body. Front corner posts on the closed cars have been narrowed, which adds to appearance and increases visibility. The new narrow corner posts have been achieved without sacrifice of strength of the composite steel and wood construction that has made Fisher bodies noted for durability.

One of the most pleasing interior changes in the closed cars is a new type seat cushion. This is aptly named "form fitting." Instead of having a continuous upward angle, this new type cushion extends out horizontally for several inches from the seat back and then slopes on an upward angle to the outer edge. This new shape provides comfortable support for the body.

The interior finish of the closed cars include harmonizing tones in Duco on the instrument board, cowl and on door and window frames.

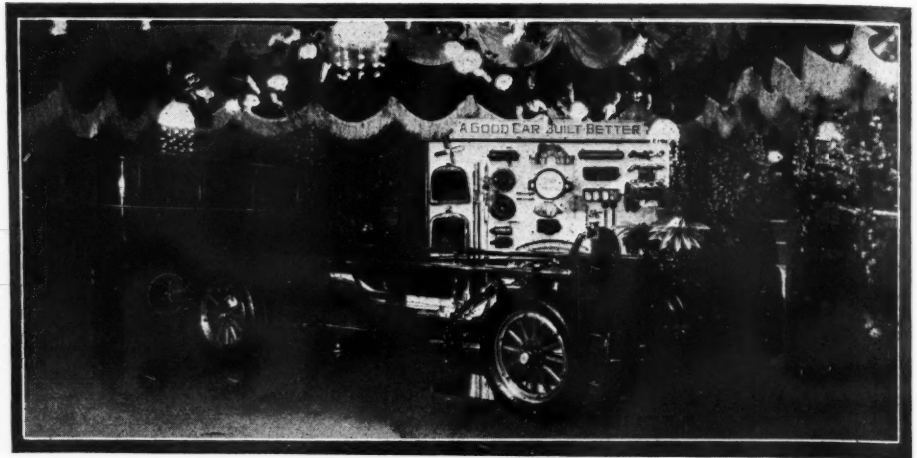
All body types are equipped with front and rear bumpers, automatic windshield wiper, rear view mirror, gasoline gage on the instrument board, twin beam headlights with control on steering wheel and an improved locking device. Moto Meters are standard equipment on sport and deluxe body types, and trunks are included with the landau sedan and sport touring.

Wilson Olds Branch

CHARLOTTE, N. C., Aug. 3—J. M. Wilson, assistant zone manager for the Chevrolet Motor Car Co., has been appointed manager of the wholesale branch of the Olds Motor Works, Atlanta, Oldsmobile distributor in Georgia.

Change Classification

WASHINGTON, Aug. 3—A change in the classification of imported timepieces for use in automobiles and the tariff duties thereon has been announced by the Treasury Department. Five years ago the department ruled that such im-



Range Motor Co. Puts on Show

This view shows the interior of the building of the Range Motor Co., Johnson City, Tenn., all dressed up in connection with an extensive and widely advertised show the company put on in honor of the new Dodge models

ported timepieces for automobiles should be classified as watch movements. The new decision now instructs custom officials that they must henceforth be classified as clocks, the effect of the change being thus to lower the import duty.

Automobile Owners

Fight Use of Lights

WASHINGTON, D. C., Aug. 4—The district commissioners of Washington have received a petition from Lieut. Gen. Nelson A. Miles, Messrs. P. J. Lockwood, William B. French, Clarence F. Norment and other owners of automobiles, protesting against the adoption of any police regulation requiring the carrying of lights on private automobiles not common to all other forms of private carriages drawn or propelled by horse power. The petition is accompanied by an argument in support of the automobile owners by P. J. Lockwood.—From MOTOR AGE, Aug. 1, 1901, 26 years ago.

Changes District Office

CLEVELAND, Aug. 4—The Lincoln Electric Co. announces that the Missouri district office has been moved from 1808 Railway Exchange Bldg., St. Louis, to 1003 Davidson Bldg., Kansas City. Robert Notvest is in charge. The St. Louis district will be handled by Mr. Notvest, his time being divided between the two cities.

A branch office has also been established at 220 Nicholas Bldg., Toledo. A. H. Homrighaus, formerly in charge of the Missouri district, having been transferred to Toledo to take charge of that district.

Found Jetton-Vincent Co.

NASHVILLE, TENN., Aug. 3—The Jetton-Vincent Tire Co., organized recently by W. H. Jetton and H. Otis Vincent, has opened for business at 1510 Broadway, as distributor in that district of Pennsylvania tires and Texaco gasoline and oil.

Seiberling Running Ahead of Industry

AKRON, Aug. 2—Another new record was established by the Seiberling Rubber Co. during the first six months of 1927. As a result of the wide public acceptance of the new water bag cured tires, recently perfected by this company, the volume of business increased 59 per cent over the corresponding months of last year. Net sales totaled \$7,298,011.19, compared with \$6,616,652.77. Although tire prices to the consumer this year averaged 30 per cent lower than the first six months of 1926, the sales of the company nevertheless showed an increase of nearly 60 per cent.

June was the largest month in the history of the company and there is every indication that the consumer demand in July will exceed the record of the previous month.

The sales of the Seiberling Rubber Co., according to a statement of Pres. F. A. Seiberling, are running ahead of the average in the whole industry.

Rim Total is 11,412,974

CLEVELAND, Aug. 1—Rims inspected by the Tire & Rim Association of America, Inc., in the first six months of 1927 totaled 11,412,974. In the full year 1926, 24,199,524 rims were inspected.

Found Indian River Motors

COCOA, FLA., AUG. 2—Indian River Motors, Inc., of this city, has just been granted a state charter. Directors of the new concern, which is capitalized at \$50,000, are L. S. Andrews, J. C. McLeod and L. S. Andrews, Jr.

Casey-Bowyer, Inc., Formed

SEATTLE, Aug. 3—Harry Bowyer and C. C. Casey, well known automobile men of this section, have formed the Casey-Bowyer, Inc.

Big Dealer Sells 10 Cars in Week

Far Behind in Deliveries to
Impatient Buyers—Mob
Burns Death Taxi

PHILADELPHIA, Aug. 4—Automobiles are becoming more and more plentiful in Philadelphia with each succeeding week. This can readily be explained by quoting a local dealer's statement to the effect that during last week alone he delivered no less than ten vehicles to their owners, all of whom are Philadelphians. He further stated that he is still far behind in his deliveries.

The Lafayette Hotel and several of the larger department stores having already enlisted the automobile in their respective services, other local caravanaries and "mill-end" emporiums are preparing to swing into line.

The Automobile Club of Philadelphia last week inaugurated a series of "motor teas," which will continue throughout the season. The members assemble at the Union League in the afternoon, and after a pleasant "drive" sit down to sup at one of the rural or Park hostilities.

Weise Hammer, the local writer and racer, who is "doing" the Paris Exposition thus records, in one of his letters to the local *Item*, an incident he witnessed on one of Paris' boulevards:

"The automobile, running—as all of them do here—at a very high rate of speed, knocked a man down, hurting him seriously. The 'chauffeur' tried to escape by throwing open the throttle to its widest, but the mob would have none of it. The machine was stopped, and while some of the crowd paid compliments to the driver and the owner of the rig, the balance slashed the tires to ribbons, tore the cushions to shreds, detached the gasoline tank and poured the contents over the outfit, and finally wound up by putting a match to the wreck."—From *MOTOR AGE*, August 4, 1900—27 years ago.

Appointed U.S.L. Distributor

DALLAS, TEXAS, Aug. 3—The Straus-Frank Co. of San Antonio has been made sole distributor for U. S. L. batteries in South Texas. The company is carrying a complete line of the batteries in its San Antonio and Houston stores.

Columbus Tire Opens Branch

ATLANTA, GA., Aug. 1—The Columbus Tire & Rubber Co. has opened a new southwestern branch at 331 Spring St., N. W., with J. D. Cary and J. R. Elliott, Jr., in charge. The branch will handle the company's trade on Columbus cord tires in Georgia, Florida, Alabama, North and South Carolina, Tennessee, Louisiana and Mississippi.

Paris Police Learn to Drive Cars

WASHINGTON, Aug. 2—An order has just been issued by the police commissioner of Paris requiring all traffic policemen to attend a special automobile driving school and become familiar with every type of manufactured automotive control and to know how to drive, says a report to the Department of Commerce from Trade Commissioner Louis Hall, at Paris.

In the case of abandoned cars it has hitherto been necessary for the police to call on a taxi driver to run the car for him to the station house.

Stevenson Eastern Sales Manager for Selden Corp.

PHILADELPHIA, Aug. 3—W. S. Stevenson has been appointed manager of sales in the eastern division by Selden Truck Corp., with headquarters in this city. Mr. Stevenson has had many years' experience in the truck field having served as general salesmanager of the Bethlehem Truck Co., and with the sales departments of Mack and Traylor Truck Co. He has already assumed his new duties.

Names Three More Dealers

KANSAS CITY, Aug. 2—The Hemphill Motor Company, Falcon-Knight distributor for the Kansas City territory, has named the following new dealers in the past few days: Ross-Darling Motor Co., Sedalia, Mo.; C. T. Stratton, Bethany, Mo., and Reavis & Kuffel, Lexington, Mo.



Paul M. Seese

Paul M. Seese is now zone manager for the Chevrolet Motor Co. at Kansas City, Mo. He was formerly at Fargo, N. D.

June Automotive Output is 314,552

Production, Consisting of
274,374 Cars and 40,178
Trucks, is Low

WASHINGTON, Aug. 2—Automotive production in the United States during June totaled 314,552 units compared with production in June last year of 339,570 units, according to figures of the U. S. Department of Commerce. The June production is the second lowest of the year, the lowest having been in January of this year.

The June production consisted of 274,374 passenger cars and 40,178 trucks. Canadian production totaled in June 16,470 passenger cars and 2728 trucks, a total of 19,208 units for the month.

For the first six months of this year the total production was 2,027,840 units, of which 1,779,334 were passenger cars, compared with production the first six months of last year of 2,305,877 units, of which 2,070,418 were passenger cars.

The decrease during June is attributed to the usual seasonal shut-down in automobile plants for inventory purposes and also to buyers' waiting for the expected inaugural and announcement of new models, particularly on account of the decrease in the Ford factories with the approach of the expected Ford four with gearshift transmission.

Start on Linde Plant

DULUTH, MINN., Aug. 3—Construction began this week on a \$200,000 plant for the Linde Air Products Co. The plant, scheduled for completion in February, is the first of a series of structures on a tract of 11 acres owned by the Union Carbide & Carbon Corp. of New York, at Thirty-ninth Ave., West and Oneota St. After that a Prest-O-Lite plant will be built to cost \$200,000. The eventual investment will be \$1,000,000.

Toleik With Gibb Welding Co.

BAY CITY, MICH., Aug. 2—John A. Toleik has severed a 17 year connection with the American Can Co. to accept the position of chief engineer of the Gibb Welding Machines Co., of this city.

Mr. Toleik has been in charge of all welding developments with the American Can Co. and was personally responsible for the high production turned out in their many welding operations.

His chief work with the Gibb Welding Machine Co. will be in the further development of its research department.

Strickle Visits Factory

SPOKANE, WASH., Aug. 3—R. L. Strickle, of the March-Strickle Motor Co., recently left Spokane for a month's tour, visiting the Durant factory at Oakland, where Star cars for Pacific coast distribution are made.

Stutz Speedsters In Rainbow Hues

Every Possible Combination
of Colors Available to
Suit Buyers' Fancy

INDIANAPOLIS, Aug. 4—Four and two-passenger speedsters in special colorings to meet "the most exacting demands of the most whimsical prospect," according to Sales Development Mgr. C. Alfred Campbell, are a seasonal offering of the Stutz Motor Car Co. of America.

Bodies in desert sand, moss agate gray, Robin Hood green, Irving gray, la crosse beige, periscope gray, dynasty blue light, pyramid gray and Ditzler's wren yellow with belts, moldings and stripes of phoebe green, hawthorn green, colite gray, picador cream, robin egg blue, pewee green, and plain orange, black, cream and light red, give an idea of the kaleidoscopic color combinations. Wire wheels are orange, phoebe green, ivory, cream or yellow, as may be desired.

All speedster models are equipped with Burbank tops and tire covers.

Registrations Gain In Western Territories

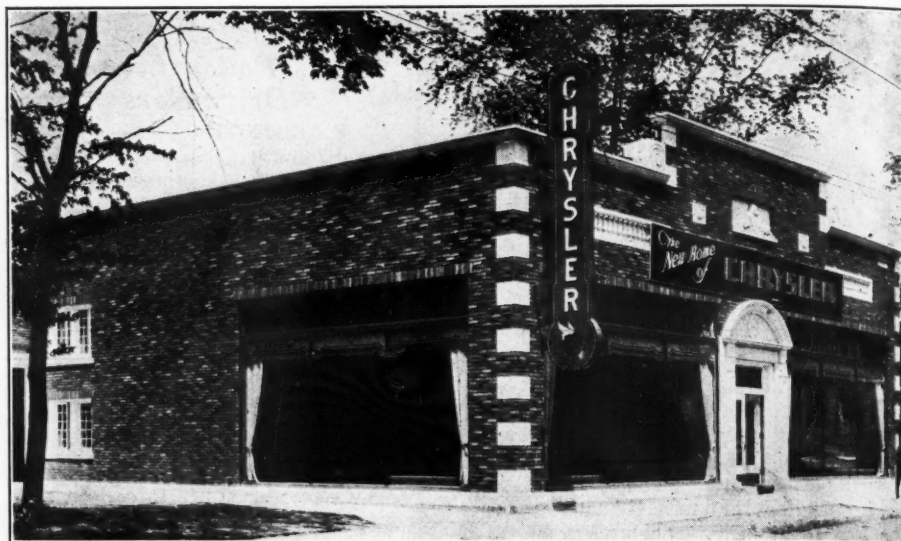
SAN FRANCISCO, Aug. 2—An increase of 130,875 in automotive vehicle registrations in California for the first six months of 1927 over the same period of 1926, is reported by the State Division of Motor Vehicles at Sacramento. The total for 1927 to the end of June was 1,625,766, as compared with 1,494,891 for the same period last year, an increase of 15.4 per cent. Of this year's list, 1,388,947 were passenger cars, and 17,260 non-resident cars also were registered in addition to the paid registrations above listed. Every county in the state reported increases in registrations, Los Angeles county leading with 645,549 registrations; San Francisco coming second with 126,163, and Alameda county third, with 119,067.

Trade in West Good

SAN FRANCISCO, Aug. 2—Both passenger cars and commercial vehicles are being sold, and are not piling up on dealers' hands anywhere in the West, according to E. A. Smith, vice-president of the Reo Motor Car Co. of California, and manager of the plant here, who has just returned from the annual meeting of branch managers and executives of the Reo company.

Former Winther Plant Sold

KENOSHA, WIS., Aug. 3—Purchase of the entire plant and equipment of the Kenosha Fire Engine & Truck Co. by H. P. Olsen and associates, of Milwaukee, is officially announced. The fire engine company was organized by Kenosha capital following the bankruptcy of



Another Chrysler Distributor

James Schlemmer, Canton, O., couldn't stay away from the automotive business and after a year of inactivity has built this new showroom and service station and reentered the industry as a Chrysler distributor

the Winther Motor Truck Co., and took over the greater part of the plant and machinery. Ralph Mock is president, and J. V. Faith, vice-president.

Whether or not the Olsen interests will continue the production of fire engines and trucks has not been indicated.

Simplicity Completes Line

PORT WASHINGTON, WIS., Aug. 3—The Simplicity Manufacturing Company, manufacturer of the well-known Simplicity cylinder reborer and grinder and other precision motor reconditioning equipment, has just become the national sales director for the Green rebabbiting and bearing fitting machines made by Green Bros., Hoopes-ton, Ill. They have also taken over the sales of the Hub City main bearing boring machine made at Aberdeen, S. D., and the Zoerman threading tool made by Zoerman-Clark Manufacturing Co., Chicago.

Found Glockner Chevrolet Co.

PORTSMOUTH, OHIO, Aug. 2—The Glockner Chevrolet Co. has been chartered with a capital of \$100,000, to distribute the Chevrolet line in Scioto and adjoining counties in Ohio, and several counties in Kentucky. Incorporators are Adolph A. Glockner, Edwin A. Glockner and Helen M. Glockner.

Belden Names Canada Agent

HAMILTON, ONT., Aug. 2—White Radio Ltd., this city have been appointed Canadian representative for the Belden Manufacturing Co., Chicago, Ill., manufacturers of radio wires, cables, etc., for automobile use. Complete stocks will be carried at Hamilton.

Sunday Closing In Detroit Continued

DETROIT, Aug. 1—The board of directors of the Detroit Automobile Dealers Association at a meeting, this week, voted to continue their campaign aimed at closing new car sales rooms on Sundays.

At a meeting held earlier in the month, the association decided to go ahead with Sunday closing plans, and while the decision was by no means a unanimous vote, the association inserted display advertisements in the daily newspapers notifying the public of its intentions.

Despite the advertising campaign a number of car dealers stayed open, as usual, but it is reported that Sunday sales were very small.

British Tire Tax Causes German Business Loss

WASHINGTON, D. C., Aug. 2—Manufacturers of tires in Germany, doing a large export business to England, are seriously feeling the effect of the imposition of the 33 1/3 per cent duty on pneumatic and solid tires imposed by the British government which went into effect last April, according to a report to the Department of Commerce from its Berlin office.

The Continental Rubber Co., of Hanover, the report states, has closed its English branch, finding it impossible to compete in the British market.

Wahl Names Ohio Distributor

COLUMBUS, OHIO, Aug. 3—The Inventors' Products Co. has been named central Ohio distributor for the Wahl spring brake, manufactured by the Wahl Co., of Chicago. The concern has the agency for 46 counties in Ohio.



Find Two Dictators

One of course is the smart Studebaker Dictator coupe; the other is the young man who, we strongly suspect, is spoiling a perfectly good putt by telling the girl (she's his sister) how it should be done

\$129,250,207 GM Net for 6 Months

NEW YORK, Aug. 3—Commenting upon the corporation's earnings for the six months ended June 30, 1927, Alfred P. Sloan, Jr., president of General Motors, said that net earnings applicable to dividends, including equities in the undivided profits of subsidiary operations not consolidated, for the first half of the current year ending June 30, 1927, were \$129,250,207. For the purpose of making a fair comparison with the corresponding period last year, he said, it is necessary to include for that period the earnings accruing to the minority interest in Fisher Body Corp., at that time outstanding. This is \$101,699,954, which means that the earnings for this period of 1927 as compared with 1926 on a comparative basis show an increase of \$27,550,253.

The foregoing, after deducting dividends on preferred and debenture stock of \$4,408,220, is equivalent to \$14.35 per share on the common stock for the first half of 1927 and compares with \$11.56 per share for the same period of 1926, after making allowance for the increased number of shares resulting from the stock dividend paid Sept. 11, 1926.

Registrations Lower

OKLAHOMA CITY, Aug. 3—A total of 10,526 automobiles were registered during May of this year in Oklahoma, about 9000 in June. July totals not yet available will probably show a further decrease. Tulsa county led the list, registering 2275 new automobiles. Oklahoma county sold 2275 automobiles, where in the month before 693 had been registered.

Most of the automobiles were of the lower priced class.

Jack Neal Nash Moves

HOUSTON, TEXAS, Aug. 2—The Jack Neal Nash Co., launched here 18 months ago in a small building with Griff Vance at the helm, this week

moved into its large new home at Leeland and Austin Sts. The new building was erected for the automobile business and has all arrangements for convenience and display connected with the selling of new and used cars and rendering service to Nash owners.

Great Britain Sells Last War Supplies

WASHINGTON, D. C., Aug. 1—The last of Great Britain's surplus war supplies, valued at \$3,500,000,000 have been sold, the Department of Commerce is advised by the American commercial attache at London. The amount realized is not given, but it was estimated that approximately 100,000 motor cars and trucks were sold, one of the largest items being a motor truck plant which cost the government \$35,000,000 to build during the war. Surplus airplane stocks were the slowest in selling, it was stated.

Reo Appoints Wilkes

DALLAS, TEXAS, Aug. 3—W. M. Wilkes has been named sales manager for the San Antonio branch of the Reo Motor Co. He formerly was in the automobile business in North Carolina but for the past few years has been in the game in Texas.

Opens Used Car Salesroom

BOSTON, Aug. 3—Jeffrey-Nichols Co., distributor of Hupmobiles, has leased a large one-story building at 1299 Blue Hill Ave., in the Mattapan-Milton section of Boston, to be used principally as a used car salesroom. Harry A. Bossinger, in charge of the used car department for several years, will be manager.

Reagles Curtis Sales Head

MILWAUKEE, Aug. 3—Buford W. Reagles has been appointed sales manager of the passenger car department of the Curtis Auto Co., Milwaukee, distributor of Reo. He has been identified during the past 10 years with the sale of Studebaker and Willys-Overland cars.

Would Standardize Tire Rim Bolt Holes

Eight Are Enough to Secure
40 Inch Casing, Standard
Welding Man Says

NEW YORK, Aug. 4—Creditable to its originator and of value to the industry is the movement headed by M. Pierrong, of the Standard Welding Co., having for its object the adoption of a standard in the number of holes bored in rims for tire bolts. So long as each manufacturer entertains an individual opinion as to the most desirable method of attachment and orders tires and rims accordingly, tire manufacturers, automobile dealers and operators will encounter difficulties due to lack of uniformity.

The tire manufacturer is unable to prepare uniform stock, the operator who breaks a rim or damages a tire is likely to be delayed a number of days in the use of his machine, and the dealer, as the unhappy go-between, is likely to have an unpleasant time of it. If the operator buys a rim and attempts to make it available by drilling additional holes he weakens the rim and renders his machine liable to another accident.

Tires are now made with lugs numbering from five to 11. Mr. Pierrong believes that in rims to carry 26 and 28 in. tires, five lugs are sufficient, and that eight would be enough for from 30 to 40 in. tires. He proposes that the trade adopt these two sizes as standard.

Holes Too Close to Spokes

It would be necessary, however, for manufacturers of hubs, for both wire and wood wheels, to make their spokes conform to these requirements. Hubs for wire wheels are, as a rule, drilled for 36 or 40 spokes, while wooden wheels have either 12 or 16, hence, to secure uniformity, the rims should have either 6 or 8 holes for tire lugs in order that none of the holes might be placed too close to the spokes, a fault not uncommon at present.—From MOTOR AGE, August 7, 1902.

N. E. Velie Co. Moves

BOSTON, Aug. 3—New England Velie Co., formerly located at 983 Commonwealth Ave., has moved to 677 Beacon St. The building formerly occupied by Velie has been purchased by Henshaw Motor Co., distributor of Dodge Brothers cars.

C. L. Boss Co. Moves

PORTLAND, ORE., Aug. 3—C. L. Boss Co., Star distributor, has moved its headquarters to East Oak St. and Grand Ave., following a check which showed that 80 per cent of the firm's patrons live on the east side of the Columbia river. A salesroom for west side patrons is also maintained.

What's Coming in Motordom

SHOWS

Automotive Equipment Association, Coliseum, ChicagoNov. 7-12
 *Chicago, National Automobile Chamber of Commerce, Coliseum, Jan. 28-Feb. 4
 *Cleveland, Public Auditorium...Jan. 21-28
 Des Moines, Coliseum.....Feb. 20-25
 Green Bay, Wis., Auto Bldg., Aug. 29-Sept. 2
 Minneapolis Municipal Auditorium, Feb. 4-11
 National Standard Parts Association, Convention Hall, Cleveland...Nov. 14-19
 *New York, National Automobile Chamber of Commerce, Grand Central PalaceJan. 7-14
 Salon, Automobile Salon, Inc., Hotel Drake, ChicagoJan. 28-Feb. 4
 Salon, Automobile Salon, Inc., Hotel Biltmore, Los Angeles.....Feb. 11-18

Salon, Automobile Salon, Inc., Hotel Commodore, New York...Nov. 27-Dec. 3
 Salon, Automobile Salon, Inc., Hotel St. Francis, San Francisco, Feb. 25-March 3
 Salon, Los Angeles Motor Car Dealers Association, Hotel Biltmore...Oct. 18-21

* Will have special shop equipment exhibit.

CONVENTIONS

Automotive Equipment Association, Coliseum, ChicagoNov. 7-12
 National Standard Parts Association, Hotel Hollenden, Cleveland, Nov. 14-19
 North Carolina Automotive Trade Association, Morehead Villa, Morehead City, N. C.August 15-16

Ohio Council, National Automobile Dealers Association, Cleveland...Sept. 14-15
 Pennsylvania Automotive Association, Johnstown, Pa.Sept. 19-20

S. A. E.

Chicago, November—National Transportation and Service Meeting.
 New York, Jan. 12—Annual Dinner.
 Detroit, Jan. 24-27—Annual Meeting.

RACES

Altoona, Pa.Sept. 5
 Atlantic CitySept. 5
 Charlotte, N. C.Sept. 19
 Detroit,Sept. 10
 Los AngelesNov. 24
 Salem, N. H.Oct. 12
 Syracuse, N. Y.Sept. 3

Kelly-Springfield Tire Co. Net \$1.78 Per Share

NEW YORK, Aug. 2—Kelly-Springfield Tire Co. for six months ended June 30, 1927, reports net profit of \$945,348 after interest, depreciated, Federal taxes, etc., equivalent after allowing for dividend requirements on 6 per cent and 8 per cent preferred stocks, to \$1.78 a share (par \$25) earned on 363,840 shares of common stock.

Auburn Net \$865,869

NEW YORK, Aug. 2—Auburn Automobile Co. for six months ended May 31, 1927, reports a net income of \$865,869. After taxes and other charges are accounted for, this sum shows a net per share of \$9.39 on the 92,171 shares outstanding. One year ago the company showed a net of \$560,848 for the six months' period and a net of \$8.30 per share on 67,572 shares outstanding.

The balance sheet of May 31, 1927, shows total assets as of May 31, 1927, of \$7,691,927, current assets of \$6,369,952, current liabilities of \$1,328,078 and a profit and loss surplus of \$2,956,199.

It is expected that the capitalization of the company shortly will be increased from 120,000 shares to 560,000. While the old shares had a value of \$25, the new shares will have no par value.

Hunt Entertains Force

BUFFALO, N. Y., Aug. 4.—P. J. Hunt, head of the "Hunt For Chevrolet" dealership at 2550 Delaware Ave., recently entertained his entire organization at dinner at the Lafayette Hotel. In a little more than a year this has become a leading Chevrolet agency in this zone.

Bantam Bearing May Move

HARTFORD, CONN., Aug. 1—Winfield Scott Rogers, president of the Bantam Ball Bearing Co., was in Troy, N. Y., this week conferring with the industrial commission of that city in regard to a possible removal of the

ball bearing plant to Troy. Invitations have been received by the company, Pres. Rogers said, to move the plant to cities in the Middle West. A lack of experienced help in the village of Bantam has led the officers of the company to decide to remove to a city.

Springfield Dealers Play

SPRINGFIELD, OHIO, Aug. 1—Springfield Auto Dealers recently held an outing at Grinnell's mill near Yellow Springs. There were all kinds of games, including swimming contests and a big dinner was the main feature. W. E. Stevens, of the Stevens-Buick Co., was general chairman. G. M. Beckett is president of the association.

To Sell Gray & Davis Plant

SPRINGFIELD, MASS., AUG. 3—Negotiations by the American Bosch Magneto Corp. to sell the old Gray & Davis factory building in Cambridge to the Jordan, Marsch Co., Boston department store concern, are making good headway, according to Arthur T. Murray, president of the Bosch Company.

300 Wright Whirlwind Engines Sold to Navy

WASHINGTON, D. C., Aug. 3—Contract for the construction of 300 motors, 225 horsepower, of a type similar to that used by Col. Charles Lindbergh in his Paris flight, was placed this week by the Navy with the Wright Aeronautic Corp. The motors are known as Whirlwind airplane motors. The contract aggregates \$1,500,000.

This is the second large contract placed with the same firm within the past two weeks, the Navy Department two weeks ago purchasing 48 Cyclone motors at a cost of \$510,000.

Rail Rate Lowered

WASHINGTON, D. C., Aug. 3—Authority to lower the all-rail rate on automobiles shipped between California and Oregon points was granted this week by the Interstate Commerce Commission on application of the Santa Fe, Southern Pacific and Union Pacific railways. The rate is lowered in order to compete with the water rate between San Francisco to Tacoma and Seattle. The water rate is \$1. The present rail rate is \$1.55, and under the new tariff the rate will be \$1.27 per hundred-weight.

International Harvester Busy

SPRINGFIELD, OHIO, Aug. 3—The plant of the International Harvester Co. in this city is working hard to keep up with orders for high speed motor trucks and buses. Indications are that trade will keep up right along, it is stated by those in touch with the works. Trucks are being shipped to South America, Chile and Australia.

Gets Patent on Window

WASHINGTON, Aug. 2—After an application pending for seven years, Horace H. Buggie has been granted patent number 1,634,449 for a sliding window for vehicle bodies, it has been announced by the United States Patent Office. Five features, however, were denied as not patentable over earlier art.



This is Easy!

All you need to do it right is an auto, an airplane, a ladder and a death-defying girl friend with good nerves

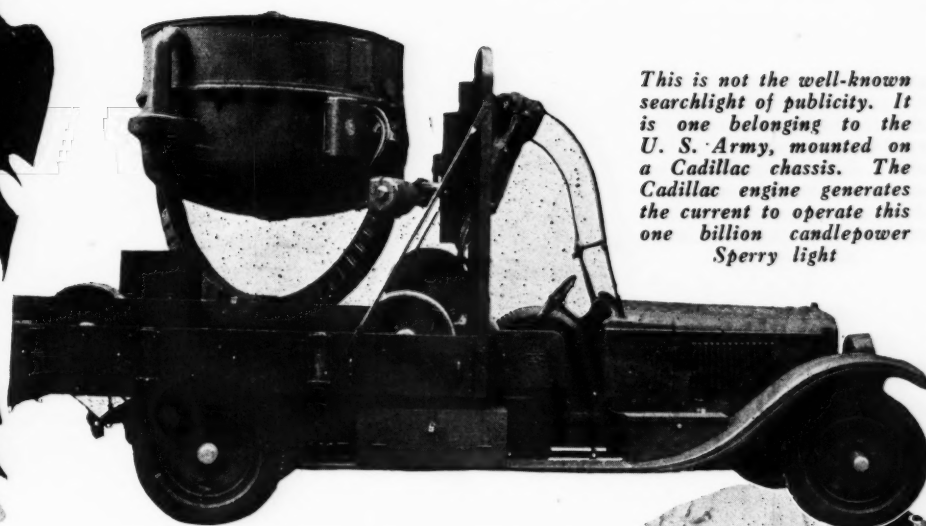
Bagged by the Camera

This is not the well-known searchlight of publicity. It is one belonging to the U. S. Army, mounted on a Cadillac chassis. The Cadillac engine generates the current to operate this one billion candlepower Sperry light

Here's a Whippet that will never be washed, come what may. It is made of the soap heralded as 99 44/100 per cent pure. It attracted crowds to the Willys-Overland branch in New York

This FWD was christened by a princess and dedicated to the lifeboat service of England

The best of friends must part. That tells the story despite the handshaking. The sadness comes of the parting of George Miller (right), formerly engineer on the B.C.R. and N., with his 1912 model Ford (also at right). His new chariot is a 1927 Ford, a morsel of which is pictured at left

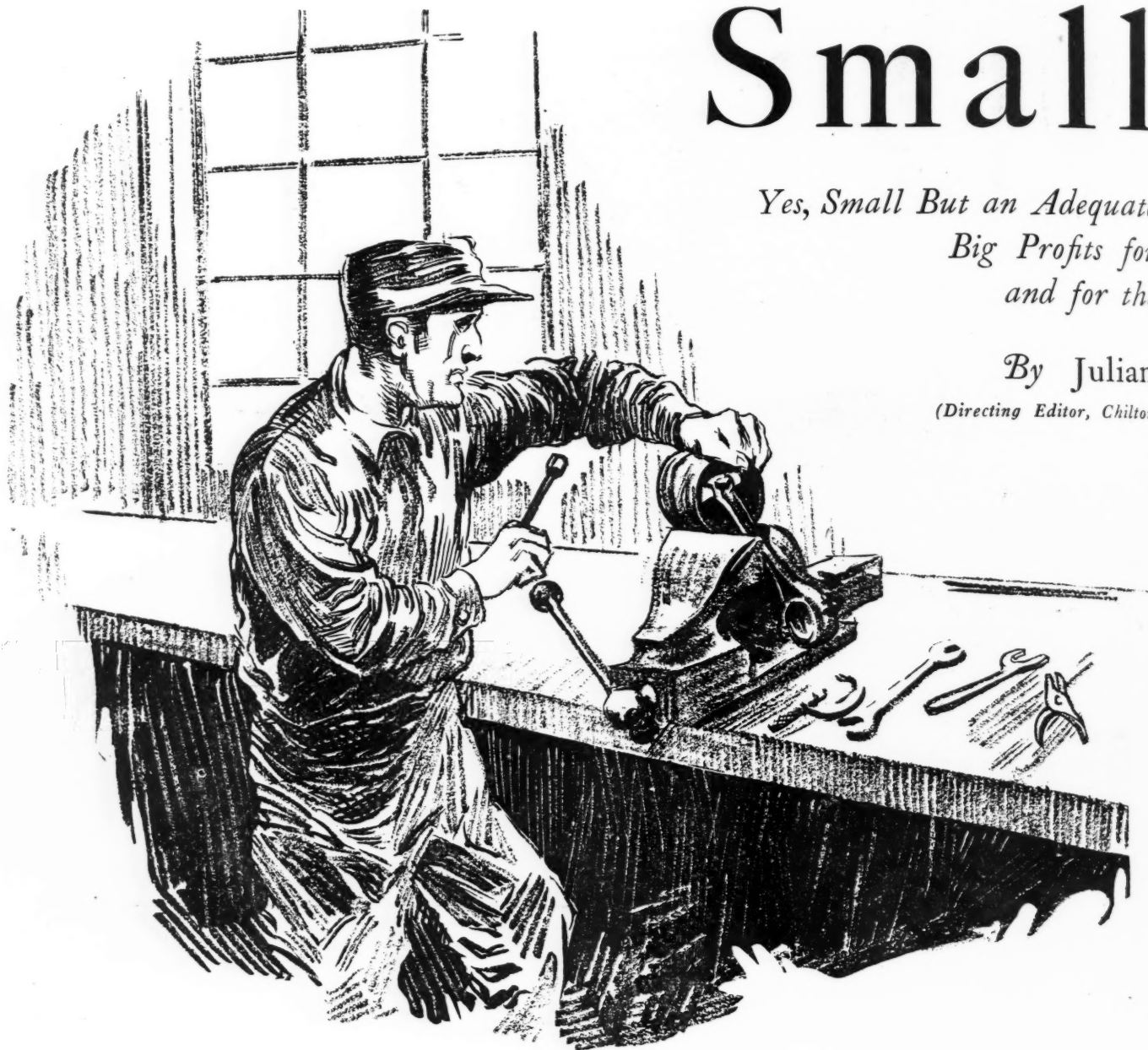


Small

*Yes, Small But an Adequate
Big Profits for
and for the*

By Julian

(Directing Editor, Chilton)



I DIDN'T buy these tools to make money for the boss. Time is money for me and in the long run they will pay me well."

Slightly paraphrased, that is a quotation from an article in a recent issue of MOTOR AGE. It is a good thought for the shop mechanic to keep in mind. It is an expression born of the kind of reasoning which the boss can well afford to encourage. It is a good hook on which to hang a page or two of comment on the importance of proper small tool equipment.

There are few phrases that are more overworked than "it was never more important." But who will question that it can properly be employed and with full significance and meaning in describing the desirability of adequate small tool equipment in these reigning days of the maintenance twins, flat rates and piece-work payment. Surely, the mechanic's time is more directly and more definitely measurable in money value to him today. Surely, too, the relationship between the output of the mechanic's hour and the boss' profit is more clearly established. The interests of the man and his employer are more apparently the same. Certainly, in the matter of adequate equipment for the efficient and

effective performance of the work to be done, they should get together. And this getting together should include a consideration of small tools.

Some shops are taking a real and active interest in the small tool equipment of their mechanics. Among such shops are those which have found it profitable to make it easy for their mechanics to buy small tools of the best quality and in a wider range of variety and kind than the mechanics could otherwise afford. They have provided access to the shop to the salesmen of established and reputable concerns handling the tried and proven lines. They have made it easy for such sales representatives to approach their sales prospects among the mechanics in their shops and they have made it equally difficult for catch-penny peddlers of the touch-and-go variety with trick devices and products of inferior quality, to do likewise. Some of them have arranged with their mechanics to pay for quality tools under an agreement whereby the shop is reimbursed by deductions from their wages. According to observation and report, this plan is favorably received and readily accepted by the steadier and more serious minded mechanics. No doubt it can be employed for

Tools

*Supply of the Right Kind Spells
the Wise Mechanic
Shrewd Boss*

Chase

(Class Journal Publications)

a wider range of small tools than that for which it is now being used.

The shop, whether it be small or large, whether it be operated on a basis of hourly or piece-work payment, which does not insist that its mechanics have high grade small tool equipment or does not refuse to employ those mechanics who have not provided or will not provide themselves with such equipment, is simply failing to stop up one of those many gaps through which profits leak. Here is another thing which must be done in these days of this fast-moving business when adequate net is no longer a more or less automatic return from what appears to be adequate volume of business.

How far a shop should go in seeing to it that its mechanics are thoroughly equipped, having in mind now the extent of that equipment, depends, of course, upon the shop, its size and the variety of its activities. In any shop there will always be room for a lot of logical argument as to where the mechanic should stop buying for himself and the boss should begin buying for the establishment. But, when it relates to small tools, that question, in most shops under prevailing fixed prices and piece-work payment plans, can be pretty well answered by the boss on his side by figuring out whether the lack of adequate equipment of that kind is slowing up the work sufficiently to affect his profits, and by the mechanic on his side by figuring whether his output could be sufficiently increased to warrant the investment. A thorough consideration of the problem by each in this way will certainly not increase the difficulty of coming to an agreement.

And there are many cases, particularly in the larger shops where even if the shop does provide certain of these tools which may be in what can be called the border-line class, the mechanic can well afford to own duplicates of them. When the tool or stock room is far away from the spot where the work must be done, many valuable minutes may be lost out of each hour and hours out of each week or month at most, through the need to walk long distances each way and to wait while the tool is checked out and in. Furthermore there is the oft-occurring chance that the shop's supply of that kind of tool is all out on other jobs. Here we have delay which at best is doubled. Both the shop and the mechanic suffer.

A recognition of the fact that the piece-work mechanic is "in business for himself" is spreading fast among them and the better kind of men are now more easily persuaded to invest in small tools of all kinds of which the use is frequent and the cost not too high. They do this, as the mechanic whom we quoted in the opening

Here is a group of small tools as listed by a house that operates on the hourly basis of compensating mechanics. This list, however, is not 100 per cent required.

- 1 metal tool box
- 1 set of socket wrenches
- 1 No. 1 14 in. speed handle
- 1 No. 2 14 in. T handle
- 1 valve grinder
- 1 valve grinder spring
- 1 perfect pocket oiler
- 1 set 16 magneto wrenches
- 1 set 6 double end wrenches
- 1 set 8 tappet wrenches
- 1 No. 97½ drill tap gage
- 1 No. 613 rubber handle screw driver
- 1 No. 10 Colton file brush
- 1 No. 112 Carborundum stone
- 1 set of three No. 123 bearing scrapers
- 1 pr. No. 12 tin shears
- 1 3 in. perfect handle screw driver
- 1 6 in. perfect handle screw driver
- 1 No. 79 outside caliper 5 in.
- 1 No. 73 inside caliper 5 in.
- 1 No. 83 dividers 5 in.
- 1 set of three Ezyouts, 4, 5 and 6
- 1 set solid dies ¼ to ½ S. A. E.
- 1 set solid dies ¼ to ½ U. S. S.
- 1 No. 480 thickness gage 24 leaves
- 3 No. 12 file handles
- 1 8 in. pipe wrench
- 1 2 in. putty knife
- 1 No. 1027 hacksaw frame
- 1 set 8 pin punches No. 565
- 1 1½ lb. machinist hammer
- 1 8-10 double end Crescent wrench
- 1 4-6 double end Crescent wrench
- 1 No. 102 6½ in. pliers
- 1 No. 315 9 in. steel scale
- 1 No. 10 T-handle tap wrench, ¼ in. capacity
- 1 No. 296 solid steel rule
- 1 No. 143 ⅜ in. center punch
- 1 No. 140 5/16 in. center punch
- 1 No. 21 Veeder speed indicator
- 1 octagon cold chisel ⅞ x 12 in.
- 1 octagon punch chisel ½ x 12 in.
- 1 octagon punch chisel ¾ x 12 in.

paragraph of this article said, not for the sake of the boss but to make money for themselves. And the boss, too, profits.

When it comes to those small tools which the shop must unquestionably buy, the need for these tools is paralleled by the dollar desirability of having a thoroughly adequate supply of them. In the first place, inability to furnish one to the mechanic at the moment when he wants it means increased cost to the shop and in the second place, ambitious, energetic, bustling men will not remain in shops where they are held up in this way too often. They go on to other shops where tools can be had when needed. It seems obvious, yet there are many shops which are under-equipped in this particular.

Whatever force or value there may be in what has been said up to this point is more readily appreciated when we have in mind the combination of flat rates and piece-work payment. But the logic of the argument holds good, too, although it may not apply so directly, when mechanics are paid on an hourly basis. The importance to the shop of the mechanic's small tool equipment is often easier for the mechanic to see than is its importance to himself.

Some well run hourly payment shops are rather arbitrary in their requirements in this regard. They list the tools which the mechanic must have and out he goes if he doesn't get them.

(Turn to page 32, please)

Oh, Save Those Tears for Five More Years

Thus Speak the Figures, Which Do Not Lie, to Dealers, Jobbers and Manufacturers Perturbed Over Model T Replacement Outlook

By C. V. Hughes

(Manager, Commercial Survey Department,
Chilton Class Journal Co.)

THERE are people who are always anticipating trouble, and in this way they manage to enjoy many sorrows that never really happen to them."

Those words are as true today as they were when Josh Billings wrote them, many years ago.

And they are as applicable to the automotive business as they are to any other business, or to any phase of family or social life.

The nugget of pure wisdom contained in them is extracted at this time to give reassurance to those dealers, jobbers and manufacturers who see in the impending debut of the new Ford the elimination of the replacement parts business on the Model T.

Anyone, after a moment's reflection, will realize that Model T business cannot evaporate overnight. The discontinuance of the model means a decline in the market for replacement parts, appurtenances and other accessories designed exclusively for it, of course, but there will be a substantial business in that market for several years, at least.

Here is the sane way to look at the situation:

It has been estimated that the average life of a car is a little over seven years. Ford's passenger car and truck production for the years 1920 to 1926 inclusive, as shown on our records, totaled 10,991,000 vehicles.

It is interesting to note how closely this checks with the table of Ford registrations for the year 1926, shown in the statistical issue of *Automotive Industries*, when the total of cars and trucks amounted to 11,081,000. Some of the Fords produced during the last seven years have been scrapped, and doubtless some of them registered are still older.

Of the total in the seven years—

Approximately	11%	were	built	in	1920
"	9%	"	"	"	1921
"	12%	"	"	"	1922
"	19%	"	"	"	1923
"	18%	"	"	"	1924
"	16%	"	"	"	1925
"	15%	"	"	"	1926
<hr/>					
	100%				

FOR at least five years, it would seem that Ford authorized dealers will be required to carry parts for Model T, and replacement manufacturers, their wholesalers and retail outlets will be called upon to supply worth-while replacement parts, just as they are doing now and have been doing for some time. It is a declining market, but so gradual that production expense and merchandising effort can be slowly absorbed as time progresses, with no need whatever for any panicky feeling.

Leaving out of consideration the production during 1927, let us start with the 1926 registrations of 11,081,000 and figure the curve of gradual elimination, based on the assumption that these vehicles will pass out of the picture relatively as they entered it.

Such a study will reveal that one year hence there will still remain on the streets to be serviced some 9,862,000 Ford cars and trucks.

In 1929 there will be 8,865,000; in 1930, 7,535,000; in 1931, 5,430,000; in 1932, 3,435,000; in 1933, 1,662,000.

These figures are theoretical, to be sure, and they may err greatly because of a speedier ration in scrapping due to the obsolescence of the model, yet they certainly offer sufficient data to predicate a continuing market for Model T parts and accessories.

For at least five years it would seem that Ford authorized dealers will be required to carry parts for Model T, and replacement manufacturers, their wholesalers and retail outlets will be called upon to supply worthwhile replacement parts, just as they are doing now and have been doing for some time.

It is a declining market, but so gradual that production expense and merchandising effort can be slowly absorbed as time progresses, with no need whatever for any panicky feeling.

While no one knows exactly how much of a new market will be created by the appearance of the new Ford line, it is almost a certainty that it will be quite extensive. Replacement parts manufacturers will set to work making parts for them, the wholesalers will supply these parts to the dealers, and the dealers to owners.

As the old market declines, a new one develops and selling organizations continue.

In a similar study of this Model T situation, John W. Anderson, president and general manager of the Anderson Company, Gary, Ind., points out that by May, 1928, the market will still be equal to that existing in June, 1925; that 1929 will be greater than 1924, and that 1930 will be about equal to 1923.

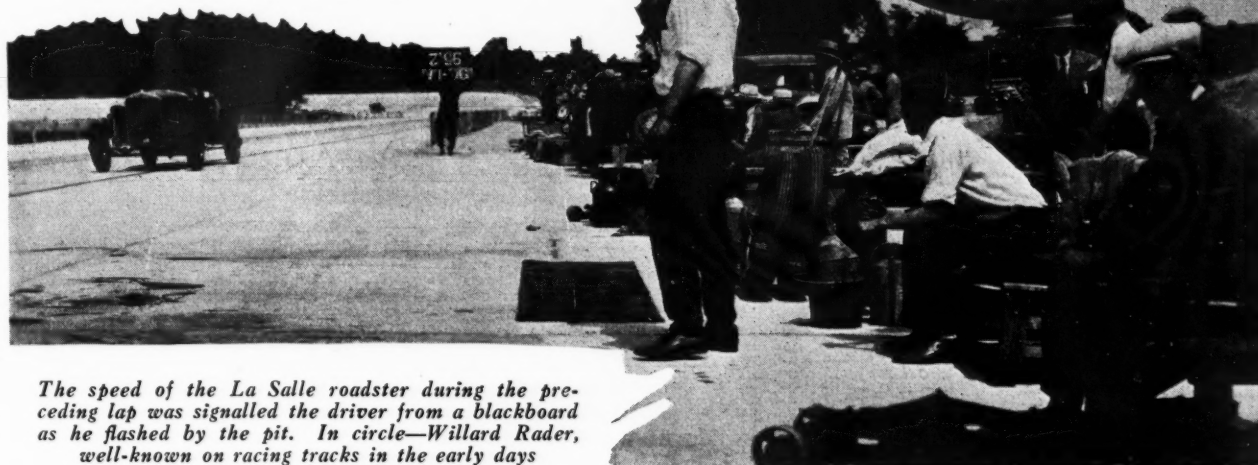
Why be unnecessarily disturbed over this Ford Model T replacement business?

Proving Performance at 95 m. p. h.

*A Personal Account of the La Salle
951-Mile, High-Speed Test by
the Man Who Held
the Wheel*

By Willard (Big Boy) Rader

*Manager, the Experimental Garage,
Cadillac Motor Car Co.*



The speed of the La Salle roadster during the preceding lap was signalled the driver from a blackboard as he flashed by the pit. In circle—Willard Rader, well-known on racing tracks in the early days

SUSTAINED high speed is the best means in the world of proving the true mettle of a motor car. A standard automobile can be driven thousands and thousands of miles at ordinary speeds before any faults can be uncovered, but if that car can be subjected to the gruelling punishment of speed, engineers can learn more about the car in a few hours' time than weeks of driving at an ordinary rate might reveal.

We had this in mind when the high speed run of the La Salle car was conducted at the General Motors Proving Grounds, recently, when the machine covered 951.87 miles in 9 hours 59 minutes and 39.4 seconds or an average of 95.2 miles an hour.

Since the La Salle was designed, which was long before it was

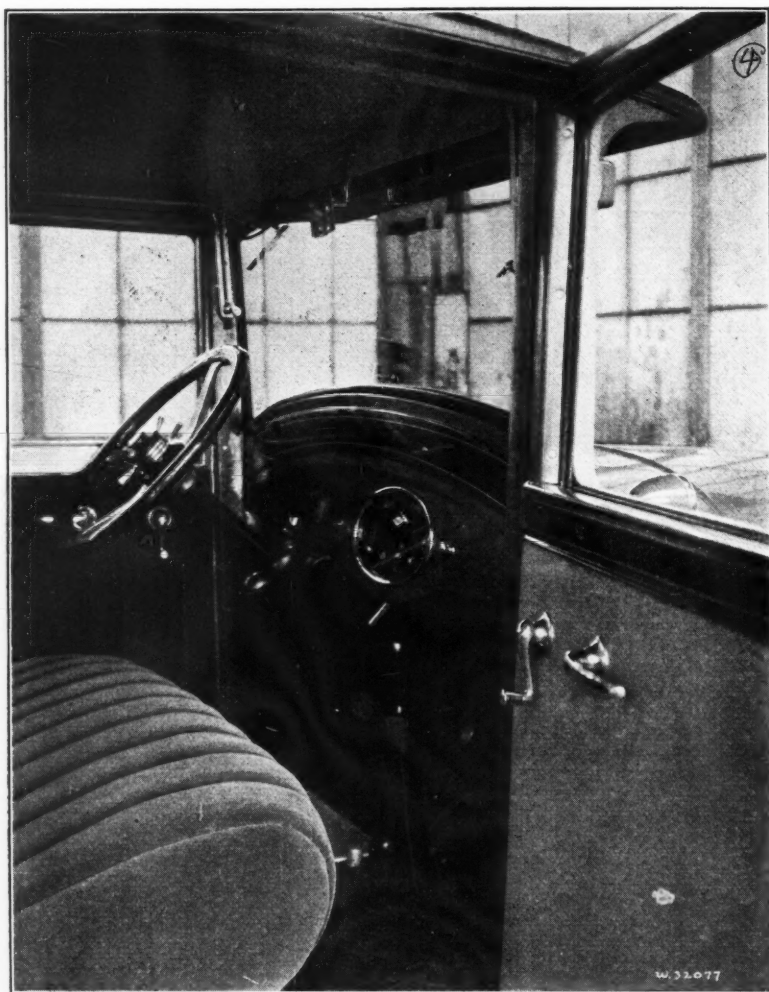
ever placed on the market, we began trying out different possibilities by having a number of the machines driven under all kinds of conditions at the Proving Grounds. These tests extended over a period of two years and covered approximately 450,000 miles.

They were run at varying speeds and the experiences gained naturally gave us much valuable information about the mechanical set-up of the car.

After the engineering department had finally determined upon the design of the new machines and after they were in production this spring, twelve cars were picked at random for thorough testing. Two of these in their first trip were subjected to a trying dash from Detroit to the Pacific Coast and return. The car
(Turn to page 37, please)



Three stop watches, operated independently, and checked with a chronometer, checked the speed



Interior of new Paige 6-45 sedan, showing improved panels and instrument board in lacquer-walnut finish

PPRICE reductions of from \$100 to \$160 on ten of the twenty Paige six and eight-cylinder body models feature the announcement by the Paige Motor Car Co. of numerous refinements in design. These reductions apply to all six models of the eight-cylinder line, these now ranging from \$2,195 to \$2,665,

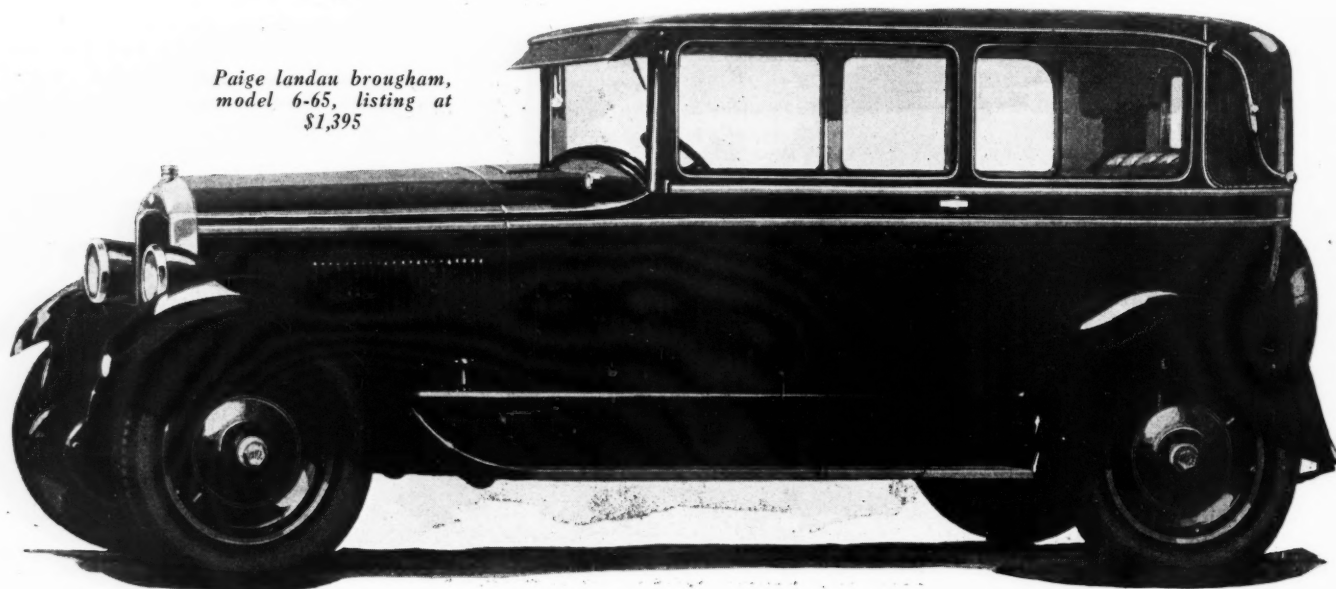
6-75 feature the six-cylinder engine changes. On the cars now coming through, the inlet and exhaust manifold are cast in one piece, with a cored intake gas heater partially surrounding the central part of the inlet manifold. In the inlet manifold, which is of the four-port type, all sharp corners have been eliminated.

Paige in

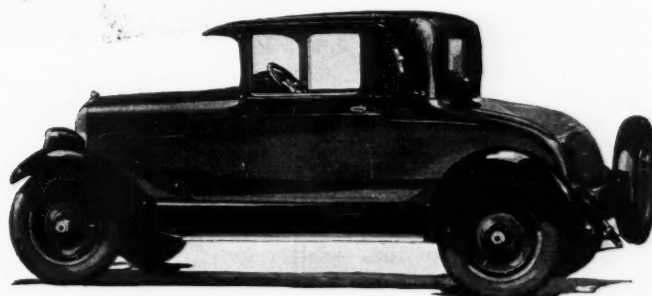
Price Cuts Range From \$100 to \$160. New Design Manifold, Rubber Engine Supports, Oil Filter and Vibration Damper Feature Six-Cylinder Changes

By Athel F. Denham

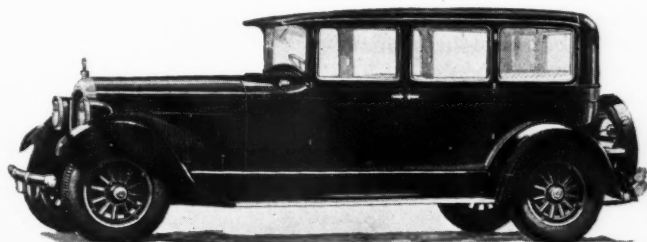
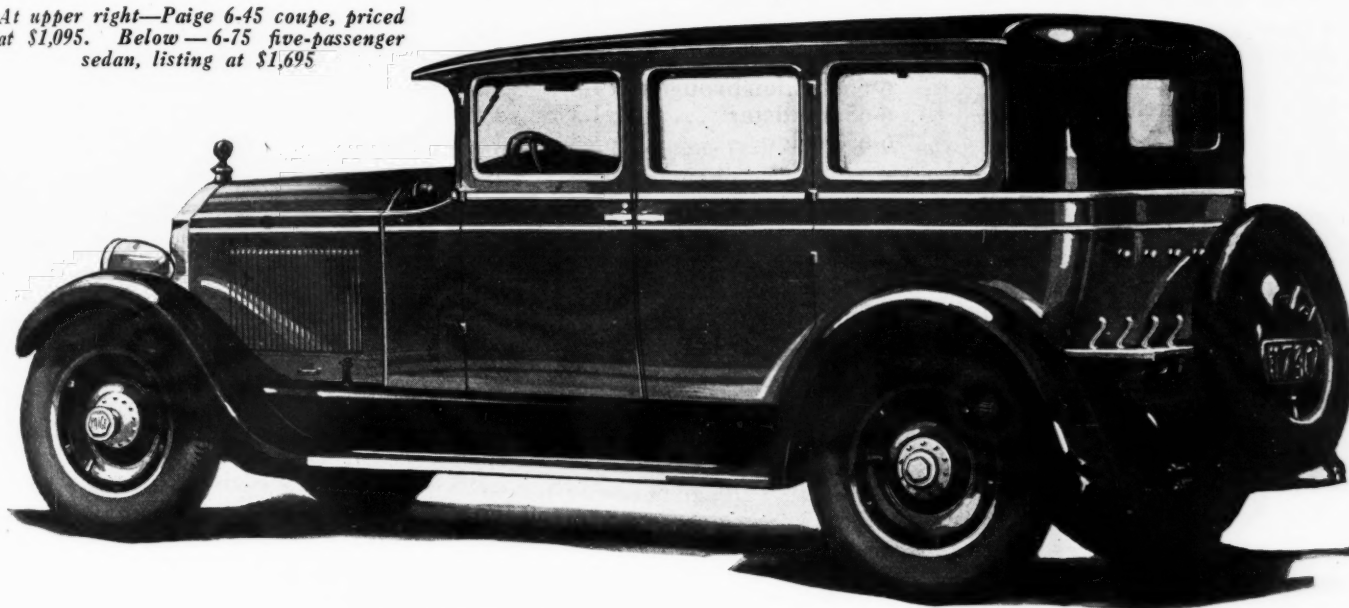
Paige landau brougham, model 6-65, listing at \$1,395



Effects Refinements Design



At upper right—Paige 6-45 coupe, priced at \$1,095. Below—6-75 five-passenger sedan, listing at \$1,695



Model 8-85 five-passenger sedan, at \$2,255

The exhaust manifold increases in diameter from rear to front, with the tail pipe attached as formerly at the front end. This gradual increase in diameter is said to have materially aided in improving engine performance by preventing the building up of back-pressures near the front cylinder exhaust ports.

Four-point suspension is now used on all sixes with rubber insulation on the 6-65 and 6-75. The front supports have the U. S. rubber mounting, while the rear supports are of the trunnion type. A forged steel bracket bolts onto the engine at either rear side, this bracket having a cylindrical trunnion shaft, fitting into a sleeve in a malleable iron bracket riveted

to the frame, and insulated from it by means of a rubber bushing flanged at one end. A rubber washer insulates the outer end of the engine bracket from a steel plate used to reduce side motion in the supports. Clearances at the end of the trunnion shaft have been designed so as to prevent the rubber washer or flange on the bushing from being in compression when assembled. A feature of this suspension is that the engine can be removed without disturbing the rubber mounting.

Radiator mounting on the 6-65 and 6-75 has also been changed. Formerly radiator cores were bolted down to the front frame cross-member. Cores now are hung inside the shell and the shell fastened down. A double V-type brace rod is used on these models to locate the top of the radiator shell. An interesting little feature on the cars is the provision of a hood support on the cowl, so as to prevent marring of the finishing when opening the hood.

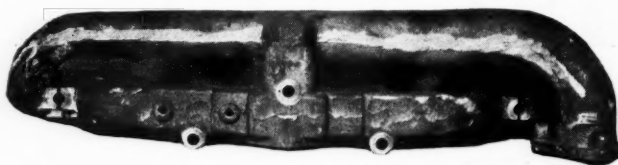
Changes in the ignition system have also been made. Distributors have been set ahead two degrees farther than formerly, this being enabled by the use of the new manifold, and resulting in increased power and better acceleration.

A nickel-plated spark plug wire conduit has also

PAIGE EFFECTS REFINEMENTS

been adopted to protect against shorting. Nickel plating is now also being used for such parts as radiator hose clamps, etc., to prevent rusting. Interior changes in the engines have been confined chiefly to a slight increase in compression ratio of the height 1/32-in. As previously mentioned, a Lanchester 6-45, by means of decreasing the combustion chamber vibration damper has been adopted on the front end of the 6-75 crankshaft. An air cleaner is now also standard equipment on the eight as well as on the sixes.

The mechanisms under the hoods of all of the cars in the Paige line present a neat, finished appearance. The engines are finished in black with black rubber hose connections. The manifolds have a heat-resistant vitreous finish. All gasoline, oil and hydraulic brake lines visible under the hoods are finished in dull nickel.



This new one-piece intake and exhaust manifold adopted on Paige Sixes has sharp intake curves eliminated

Following is a list of body models offered by Paige with old and new prices:

Model	New Price	Old Price
6-40 phaeton	\$1,095	\$1,095
6-45 coupe	1,095	1,095
6-45 brougham	1,095	1,095
6-45 sedan	1,195	1,195
6-45 cabriolet r'dster	1,195	1,295
6-65 landau brougham	1,395	1,395
6-65 roadster	1,395	1,495
6-65 sedan	1,495	1,495
6-75 7-pass. phaeton .	1,655	1,655
6-75 5-pass. sedan ...	1,695	1,695
6-75 7-pass. sedan ...	1,995	1,995
6-75 cabriolet r'dster	1,895	1,995
6-75 coupe (4-p.)	1,895	1,995
6-75 limousine	2,145	2,145
8-85 phaeton	2,195	2,295
8-85 5-p. sedan	2,255	2,235
8-85 7-p. sedan	2,525	2,655
8-85 4-p. coupe	2,495	2,655
8-85 cabriolet r'dster	2,495	2,655
8-85 limousine	2,665	2,795

Spark and throttle rods, hose clamps and fittings are nickel-plated. The ignition wires are incased in a nickel-plated tube.

Smaller, 20-in. wheels have been incorporated on the 6-65 models, these now taking 30 by 5.25 balloon tires, decreasing overall height on these models. A further appearance of reduced height on all body models has been achieved through the use of lower top lines and changed window reveal contours. Backs have been rounded off at the top and visors have been shortened to improve external appearance.

New color schemes are used throughout, a new style instrument board has been adopted and interior finish has been materially improved through the use of new upholstery, built-in arm rests, and improved paneling. Mohair is used on the closed six-cylinder models with broadcloth on the eights.

Small Tools

(Continued from page 27)

Naturally a list of required tools in an hourly payment shop would be longer than one in a shop where piece-work payment prevails. Just to visualize the absolute minimum of requirement whether stipulated by the shop management or not, there is given here a list of the equipment required by a certain well-known and well-managed shop where the mechanics are paid by piece-work. In this shop the mechanics *must* have these tools:

- 1 Modern socket wrench assortment with detachable 7/16 to 3/4 inch square and 1/2 to 1 7/16 in. hexagon sockets
- 1 Tee handle, long (for sockets)
- 1 Speeder handle (for sockets)
- 1 Offset and T handle (for sockets)
- 2 Extension bars (for sockets)
- 1 Flat ratchet (for sockets)
- 4 Open end wrenches
- 3 Chisels (cold and cape)
- 3 Pin punches
- 1 Taper punch
- 1 Center punch
- 1 Set tappet wrenches
- 1 Pair side cutting pliers

- 1 Pair combination pliers
- 1 1 lb. ball pein hammer
- 1 2 lb. ball pein hammer
- 2 Screw drivers
- 1 Socket adapter

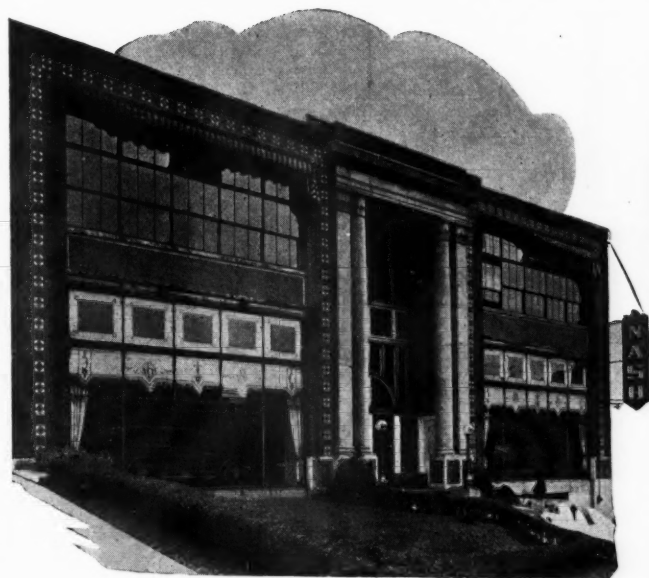
It was several hundred years ago, wasn't it, that it was decided that the workman is known by the kind and condition of his tools? It's still true today and just as much so in our business as in any other.

Association Managers Discuss Used Cars

COOPERATIVE car dealer junk yards, regional shop equipment exhibits for the 1928 automobile shows and the Windsor used car plan were important subjects discussed at the annual before-shows convention of the National Association of Automobile Show and Association Managers in Chicago, July 28-29.

A. B. Waugh, commissioner of the Omaha Automobile Dealers Association, outlined the methods that have made the Omaha dealer junk yard very successful and the interest manifested in the subject shows that many dealer associations are planning to use this method of handling junk cars.

Boston, San Francisco and Columbus, Ohio, dealer associations were admitted to membership at the meeting, making the total membership 28.



The imposing front of the new Nash Cincinnati Motors Co. home.

Front *and* Center

*Nash Cincinnati Motors Put
Up the Former on the
Latter and Now
Look at It*

THE beautiful new home of the Nash Cincinnati Motors Co., said to be one of the most modern and complete sales and service buildings in the United States, has recently been completed after a period of expansion and development lasting several years.

With a practical, up-to-date solution for every problem which confronts the large automobile distributor, and with every detail of its plant designed for the convenience of the customer, this concern is enjoying a constantly increasing volume of business yearly under the administration of Frank J. Santry, president of the concern.

The underlying thought in the construction of the new Nash home in Cincinnati was to provide unsurpassed facilities for Nash owners. The building is located at Reading Road, Morgan and Iowa Streets. Reading Road is a main arterial highway of the city, and is a part of the Dixie Highway. One square north of Morgan Street is another main business street of the city, so that Nash owners, either local or transient, find it very convenient to drop in at the service station for adjustments and repairs to their cars.

The front of the building is unusually attractive. Huge columns reaching two full stories from the street

end in a decorative effect and lend an air of spaciousness to the entrance which is flanked on either side by two huge plate glass windows which front the showroom. The building is faced with tapestry brick with an inlaid design which outlines the contour of the building. Huge awnings extend across the top. The entrance, to which the visitor passes between the high columns, is recessed from the building line and is lined with marble.

The entire effect of the building is attractive, and it offers a distinct departure from the usual stereotyped design of most buildings of this character.

Entering the showroom, the visitor finds a complete line of Nash cars displayed to the very best advantage, with plenty of space between the various models. Ample daylight is provided through the huge plate glass windows in the front. The entire effect upon the prospective customer from the time he approaches the building until he is inside, viewing the cars, is one of quiet luxury and good taste.

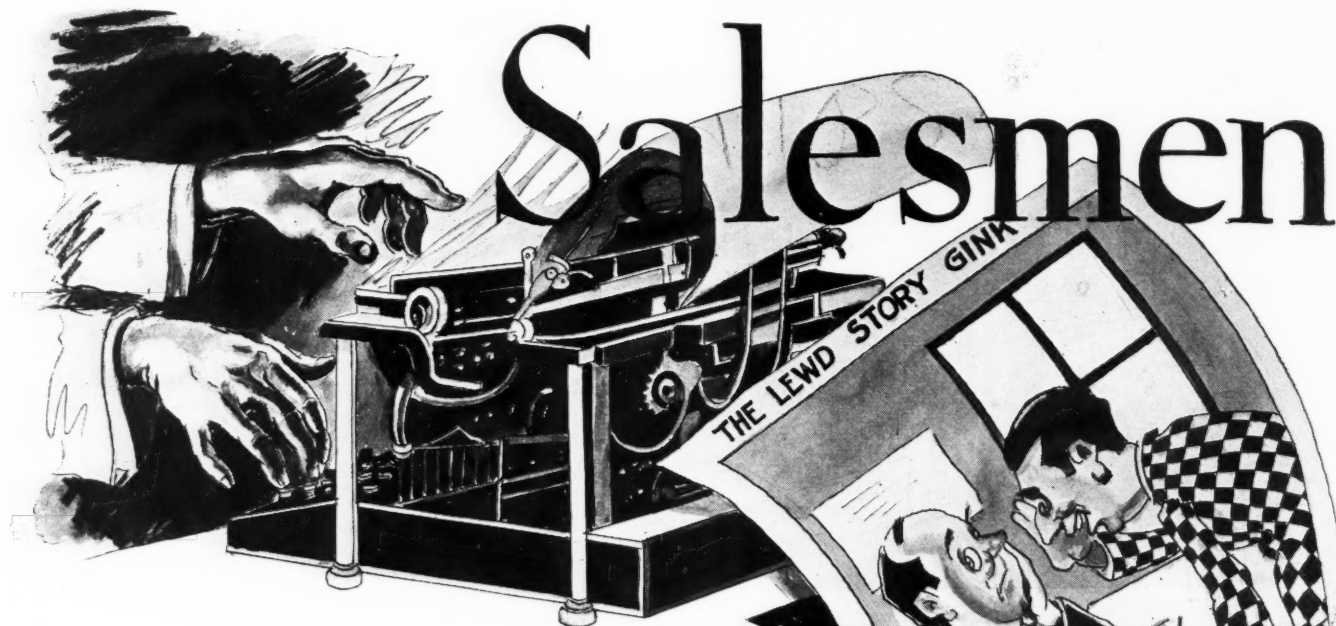
As the result of the constantly increasing sales of new cars which the company has enjoyed, facilities for handling used cars have been developed to a high degree.

The used-car department is located on the second floor,

(Turn to page 40, please)



This is the attractive used car showroom of Nash Cincinnati Motors. The skylight and solid row of windows on left furnish plenty of natural light.



HERE is another story of the "Perfect Parts Man" and "Flat Tires I Have Known" type. In this the buyer steps from behind his favorite counter, tells his stenog she can spend the afternoon in the movies, parks himself at her combination desk-dresser and assumes the role of author.

This quick change is at the expense of the salesmen with whom he does business, but while he paints the salesman in alternate black and white, a lesson fills in the background. Don't lose sight of it while being entertained by the low-downs.

FOR the past seven years I have been doing all the buying at the two stores I have worked for during that time. Naturally I have met many salesmen for different jobbing firms, and they have divided themselves into a few classifications in my mind. I have often thought that it would be rather an entertaining thing to take them as they come and beat them to their "stuff," to tell them in advance just what they would do on each visit, and how they would go about getting the order they came after.

Of course the majority of those who call on me are not really salesmen; they are merely on the road accepting enough orders from garages and filling stations to keep on the payroll. This class always sidles up to the counter I prefer to do my buying over and asks three questions in rapid succession, "Well, how are you today?" "Well, how is business with you now?" "Well, is there anything on your mind you want from me?" This is followed by the telling of a lewd story, one that I have usually heard told much better by some young lady of my acquaintance, and a repetition of the last question, after which the salesman (?) leaves me with the admonition that if I need anything I must not forget him.

Let me break into this discussion long enough right here to state that I would willingly give a month's salary to learn just why these salesmen always feel that it is their charming personality that will secure them

orders, and that I will think of them first in emergency orders and in regular buying. Buying is, to me, a sincere effort to get merchandise that will satisfy our customers at a price that we can make as large a profit as possible without overcharging our customers. Among the salesmen who call on me are many I like very much personally who fail to sell me, for the company I represent, a single item. I may be "hard boiled" but I count the pennies of the company employing me much more closely than I count my own small change. With myself, and I believe with almost all purchasing agents, more attention is paid to many other things than to the salesman who sells me the goods.

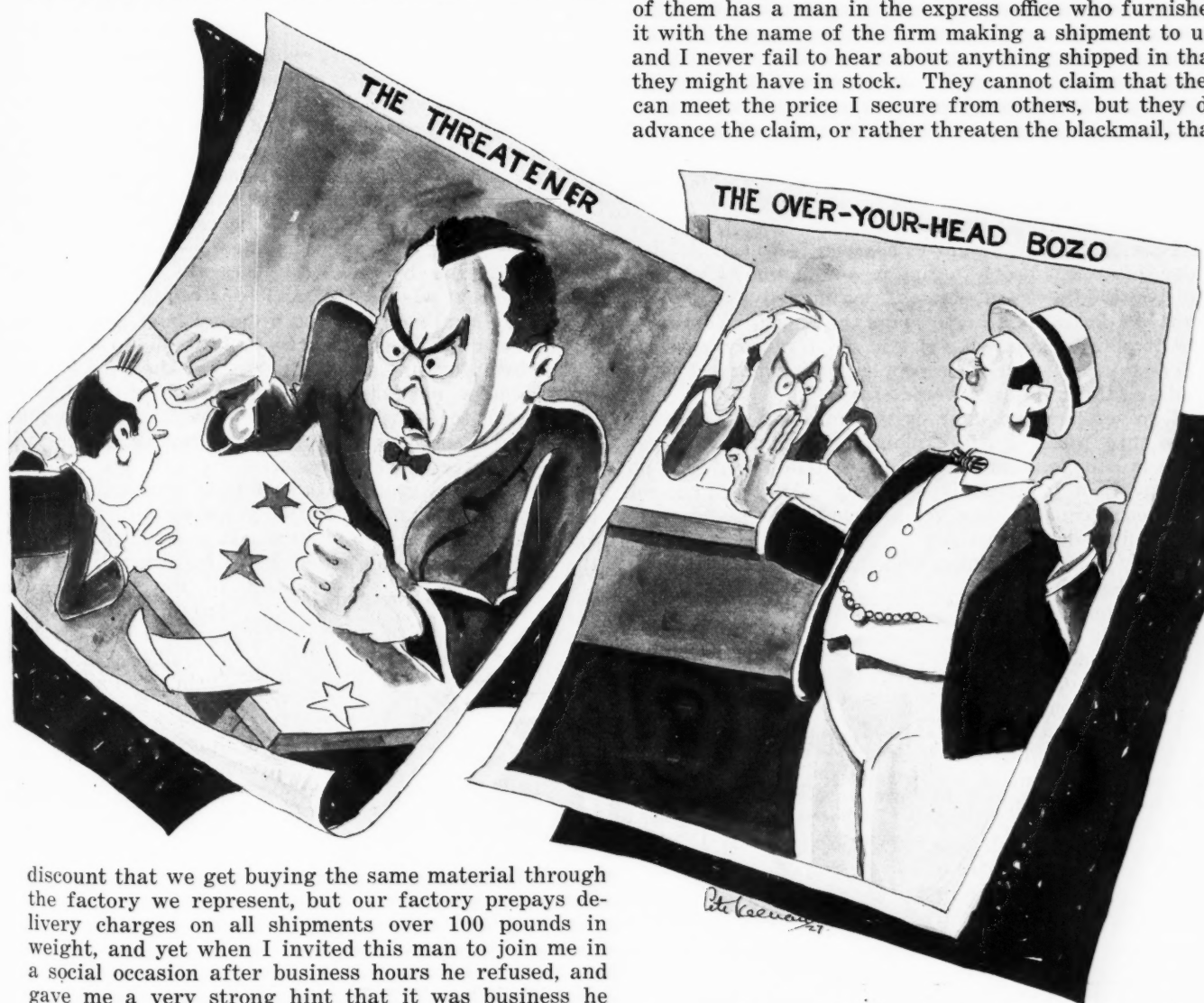
An instance of this occurred last week here. A man

Under a Buyer's X-Ray

A Purchasing Agent, Who Counts His Boss' Pennies, Shows No Quarter to the Men Who Try to Sell Him, and Catalogs Them According to Their Traits

representing a large national manufacturer has called on me for the last seven months. He is one of the most likeable men I know, and his company gives us the same

pretty good volume from our firm in pick-up stuff and emergency orders, but neither of them is satisfied. They take different ways of showing their displeasure. One of them has a man in the express office who furnishes it with the name of the firm making a shipment to us, and I never fail to hear about anything shipped in that they might have in stock. They cannot claim that they can meet the price I secure from others, but they do advance the claim, or rather threaten the blackmail, that



discount that we get buying the same material through the factory we represent, but our factory prepays delivery charges on all shipments over 100 pounds in weight, and yet when I invited this man to join me in a social occasion after business hours he refused, and gave me a very strong hint that it was business he wanted from me and not friendship, that I could not expect to have his friendship unless I allowed friendship to outweigh the slight saving per month in freight I was making by buying from the factory.

In our town there are two wholesale houses and these two, of course, call on me the most frequently. Being small houses they naturally do not meet the larger firms in price, and never can expect to. Both of them get a

they can keep people from buying our cars if we do not buy from them exclusively. It may be that they can.

The other local firm uses the Chamber of Commerce argument: you must buy locally if you expect the community to prosper. And the most prosperous community on earth cannot help a business that does not buy at a low price as often as possible. The community will not buy from us if our prices are not right. We must buy

SALESMEN UNDER THE X-RAY

as low as possible in order to sell as low as possible and still make a living profit.

Still, low price is not everything, as I am constantly forced to show another type of salesman. This class always has some article that resembles a well-known brand in appearance or name, but fails in quality, which the salesman wishes to sell me at a long discount so that I can temporarily enrich the company by selling an article that will eventually drive trade away. Of course you can't argue that point with him.

One class of salesman I meet very rarely, but each meeting is a very painful one, and generally leaves me in a state of hostility to this man, his company, and their goods.

This man, or these men, will come in, secure an order, and then look it over in a disgusted way. I always know what to expect then.

"Now Mr. Blank I want to ask you if you really consider this a fair order to give to a man who has a wife and two kiddies to support. They must live and to let them live Papa must bring home the bacon. You know that if all companies this size in my territory gave me orders this size, and other people in proportion, I'd get fired and these children would starve."

If I ever have an hour or two to spare when I am given this "rush" I will explain to the gentleman that there is a bare possibility of my getting fired if I do not buy in a business-like manner. And I must not get fired because I may get married myself and start on my first dozen children.

Closely allied to the man who cries about his children is the salesman who will not quote you prices. He always meets a request for a direct quotation with the statement that all I need to do is to give him the order and wait, he will get me the very best price the company can afford to give, which has, in the few times I have trusted to it, always secured me a slight advance over what others were charging for the same article.

Another class of salesmen, which is larger than it should be, is the one that feels the orders from the company belong



The salesman who makes a thorough check of the stockroom and confronts you with his list

to it. Let one of this class hear that a competitor has a nice fat order from our house, and I am quickly called to task for not hunting him up and asking him to lower his previous quotation when I secure a better price. Or else he feels, and manages to tell me, that I am some kind of a traitor to his friendship in that I ever allowed myself to be swayed by the mere fact that a competitor had a lower price, or, it sometimes happens, better service.

There are about five salesmen in this territory who always come in while I am at lunch, if possible, and use their friendship with the stockroom boy to secure a chance to look over the stock. When I come back I find them with a prepared order which is made up from the condition of the shelves, and does not take into account any orders that may be out, or any other things that would enter into my buying. Of course when the order is cut to my ideas they leave with their feelings deeply wounded.

Some of the bright little boys are so anxious to please me that when a new article is brought into their stock they send me an initial order without the formality of consulting me, and try to beat me to the complaint by informing the company that there is a little disagreement, but not to allow the return and that they will attend to everything. Of course this puts me in bad with their company, and when my boss sees the correspondence he never understands.

After all this grouchy talk of mine you will be surprised to know that there is only one class of salesmen I absolutely refuse to buy from. It is true I dislike all the classes I have mentioned, but I hold myself rigidly to the business of buying rather than my dislikes and prejudices, and buy from them all to the best advantage of the company. That is, I buy from all classes except one; I never buy from the man who goes over my head to the man who does not have any contact with the article after it is bought. I do not object to a salesman showing tools and appliances to the mechanics, or other articles to those who are most directly concerned in them after they are pur-

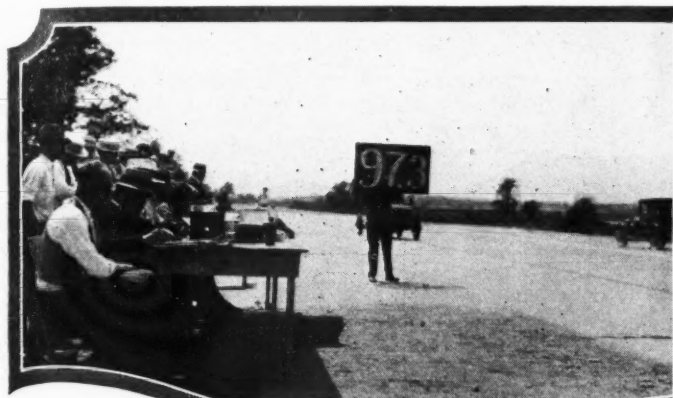


The guy who won't quote you a price

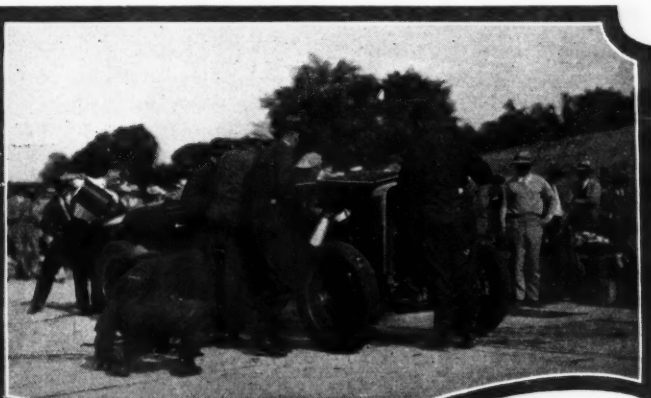
(Turn to page 43, please)

PROVING PERFORMANCE AT 95 M. P. H.

(Continued from page 29)



In the foreground on the table is the chronometer used to check all stop watches. Seated at the table are the keeper of the chronometer, operators of the stop watches and their time recorders



Nine stops, totaling 7 min. 24.7 sec. were made at the pit for gasoline, oil, water and tire changes during the 951-mile continuous run of the La Salle roadster. The longest stop was 1 min. 18.8 sec.



Jess Nall, who acted as relief driver and as mechanic

used in the 951-mile test run paced the Indianapolis race this May. After it had been driven about 12,000 miles at speeds far in excess of what any owner would ever drive a car, it was decided to see just what effect terrific speed would have upon it over a considerable period of time.

The car, as has been stated before, was a standard La Salle with the exception that it was equipped with a $3\frac{1}{2}$ to 1 gear ratio, compression was slightly increased and the camshaft was altered for high speed work. Fenders, top, lamps, and windshield were also removed. On past performances we had satisfied ourselves that the car was exceptionally fast and we were determined to find out just how long it would stand up in a long grind.

It was my pleasure to drive the car 834 of the 951 miles, I being relieved for 117 miles by Gus Bell who also acted as the mechanic for the entire distance with the exception of 300 miles when Jess Nall acted as mechanic. Despite the fact that it has been several years since I was driving racing cars, I suffered no fatigue with the exception that my hands became tired from grasping the wheel for so long a period.

Some have asked me what the biggest thrill of the whole test was and my reply is that there were few incidents which could be termed thrills. About the most exciting thing that I remember was when a tread loosened from one of the tires and was thrown through the air dangerously close, otherwise I had none of the risky experiences which were often encountered back in the days when I was driving regular racing cars.

Before starting the test it was believed that the car should be able to maintain an average speed of 90 miles an hour, based on past experiences. Everything worked so smoothly that we just couldn't resist the temptation to extend it on further.

Never have I driven a car at high speed which functioned as regularly. This fact is attested by the

average speed which was maintained throughout the run. At 100 miles, before any stops had been made, the average was 96.7 miles an hour; at 200, 95.6; at 300, 95.5; at 400, 95.3; at 500, 95.0; at 600, 95.0; at 700, 95.2; at 800, 95.0 and at 900, 95.1 miles per hour. When it is considered that the fastest lap was made at 98.8 miles

an hour, the average, to my mind, is all the more consistent.

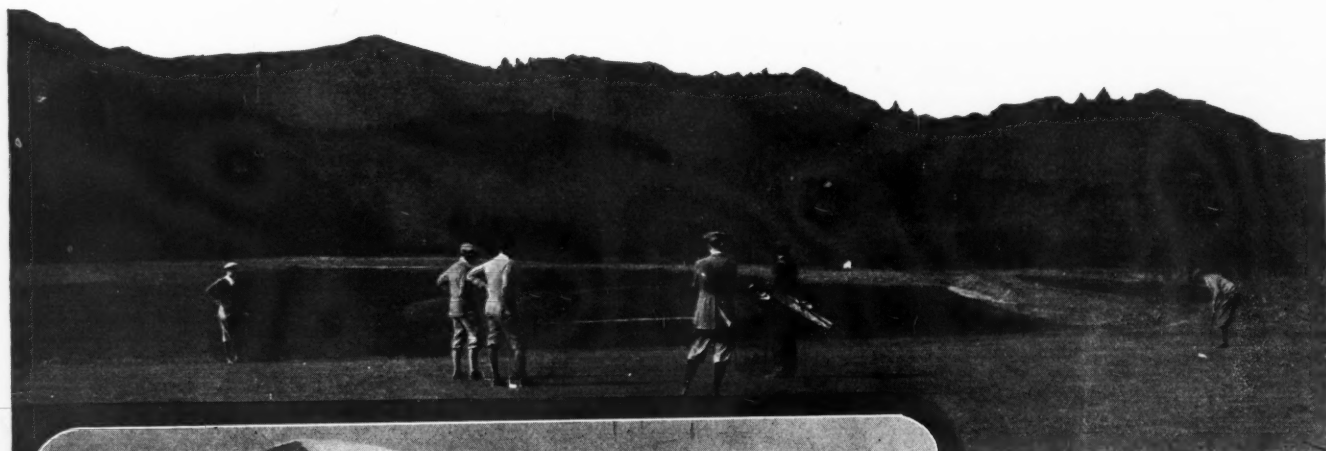
To my mind the outstanding feature of the test was the fact that not a single wrench was touched to the chassis or engine. There were nine pit stops which required 7 minutes 24.7 seconds. The longest was for 1 minute 18.8 seconds and the shortest for 30.1 seconds. The car weighed approximately 4000 lb., compared with the 1500 lb. racing cars such as are used at Indianapolis, and only required four tire changes. Three tires threw their treads and the fourth wore out. Aside from these tire changes the only things necessary at the pit was to add water, gasoline and oil.

While the pit crew worked remarkably fast under the conditions, if we had substituted racing hubs and wheels for the regular type and if we had built a special gasoline tank designed to take gasoline faster and means of oiling the car quicker, like regular racing cars, I am sure we could have cut our pit time nearly in half.

During all the 951 miles, which is nearly double the distance the special racing cars cover at Indianapolis, and which was accomplished at a speed approaching that attained by special racing machines, not one single bit of mechanical trouble appeared.

Never in my life have I had a ride which I enjoyed as much as the test run. It was sport and at the same time we realized that the engineering observations of the performance would be valuable. I'd like to make a similar run tomorrow, both for the fun of driving and for the engineering data obtainable.

Hot Weather *Makes* Hot



Hot weather is when car owners seek relief in the mountains and at country clubs. And on the road is where the old bus looks shabbiest. In such weather the man who yearns to own a car is ripe for signing

UNWISE automobile salesmen act on the theory that there is no business in the summertime. Wise salesmen act on the principle that hot weather was made to order for the purpose of creating prospects for them.

You can bet next fall's deliveries on the truth that if it is not too hot to play golf, it is not too hot to close a sale.

Salesmen should not look upon August as a dead loss to them.

Q. WHEN does an automobile look most inviting?
A. In the summertime.

Q. When is there most pleasure in driving?
A. On a hot day.

Q. When is an automobile much more than a medium of transportation?
A. In the season of beaches and country clubs.

Q. When does the old car look its shabbiest?
A. In July and August.



Q. When do its squeaks and rattles sound their loudest?

A. When the dogstar is in the ascendant.

Q. What makes a hot prospect hotter?

A. Hot weather.

Prospects Hotter

By
John Cleary

*And the Cold Ones Are Warmed
Up When Old Sol Drives Hu-
manity to Seeking Relief. Then
it is That Many Factors Con-
spire to Make These Pros-
pects Play Into the Hands
of Alert Salesmen*



*The country and the shore are hot-weather lures
that should be taken advantage of by every car
salesman*

THESE six questions from the Catechism of Smart Salesmanship are assigned to the class for study during August and the better part of September. The good scholars in the class of automotive salesmanship will be those who become letter-perfect in the questions and answers. The best scholars will be those who not only know the answers but also translate them into sales. Knowledge is power, you know, only when you translate the knowledge into action.

Just how much truth is there in these questions and answers?

Think it over for a minute.

The hotter the day the more inviting an automobile looks to everyone. It means a cool and comfortable escape from desk or shop to country club or beach.

There is more of the pleasure of driving in the summer. And it is when a man thinks of his car as a medium of pleasure that the delinquencies of his old cluck disclose themselves most clearly to him.

His old car looks shabby and disreputable beside the new models that pass him on the road. If he is not discerning enough to see this for himself, friend wife is more than likely to call it to his attention.

The squeaks and rattles seem more pronounced. The ailments of the engine seem more serious. The two-wheel brakes and hard pressure tires seem more antiquated. That leak in the cooling system is not so easily stopped. The fan belt has seemed to stretch like elastic. Maybe the engine overheats so frequently that he has to carry a jug of water under the seat.

In other words, he is a good, hot prospect for a new car, although the chances are that he doesn't know it.

Unwise automobile salesmen act on the theory that there is no business in the summertime.

Wise automobile salesmen act on the principle that hot weather was made to order for the purpose of creating prospects for them.

Hot weather makes cold prospects hot and hot prospects hotter.

You can bet next fall's deliveries on the truth that if it is not too hot to play golf, it is not too hot to close a sale.

It has been demonstrated that business actually

(Turn to page 43, please)



F R O N T A N D C E N T E R

(Continued from page 33)

to the rear. Here the entire decorative scheme is carried out in a rustic effect, and this idea is even carried out in the advertising.

The showroom, which will take care of sixty cars placed in regulation showroom style, is bright as day. Night lighting is taken care of by amber lights which give an unusually soft effect.

Used cars are without exception put in excellent condition before they are offered for sale. Mr. Santry has laid down definite rules governing the reconditioning of used cars, which must be carried out to the letter. No junkers or obsolete models are shown, but are disposed of through other channels.

Equal care has been shown in planning and conducting the service and parts department, so that the rapidity and excellence of Nash service in Cincinnati has become proverbial. A perpetual inventory system is used and the stock on hand is controlled by an average system based on the requirements of the past thirty days. This means that the maximum amount of stock carried of a particular item is changed every month. Ninety-nine per cent of all orders received are filled out of stock without delay—a record which speaks volumes for the efficiency of the system. A delivery truck makes three trips a day to the post office and express office with parts going out into the territory. Any order received before four o'clock in the afternoon is filled the same day, and the dealer in the farthest point in the territory will receive his order before noon of the next day. Thus Nash owners, if they must wait at all for parts, are assured of the very quickest possible service.

In order to facilitate the movement of cars through the various service departments, an information board has been developed which occupies the entire time of an expert operator. As each order is received it is

given to the operator, who knows which department can handle its part of the work first. Thus if the order requires several types of work such as mechanical, trim, paint or washes, etc., the car is routed so as to be completed in the shortest possible time consistent with good workmanship. All board records are kept with colored tags.

No detail of service work need be delegated to an outside concern. The company is equipped to handle everything, including lacquer, sheet metal work, body work and upholstering. There are 49,000 square feet of floor space in the service station.

The first floor of the service department is equipped with five wash racks, which use the cold stream system. There is storage space on this floor for seventy new cars, which are also conditioned for delivery here.

There is a Quick Service Department on the second floor which takes care of minor adjustments in a very short time, avoiding delay and inconvenience for the customer. The parts department is also on this floor. The balance of the service work is done on the third floor, and includes general repair work, lacquer refinishing, sheet metal work and upholstering.

The accessibility of all these departments, which in all cover five floors, is greatly facilitated by the decided grade of Morgan Street, which makes it possible to eliminate the use of elevators entirely. Each floor may be driven to from the street with the exception of the topmost, which is reached by a ramp.

The plant was completed in 1927 after six years of development which began in 1921 when the business grew to such proportions that immediate expansion was made necessary. It is now considered among automobile men to be the last word in convenience and beauty, and has drawn its full share of attention and favorable comment from experts who have inspected it.

Chrysler 52 Makes Debut With Prices Cut \$25 to \$70

LOWER prices, with reductions ranging from \$25 to \$70, feature the announcement this week of its Model 52 four-cylinder line by the Chrysler Corp. Better streamlining, giving the appearance of decreased height, form-fitting seats, new interior and exterior finish, and a new type manifold are further features of the line, whose bodies are the lowest priced ever marketed under the Chrysler name plate. Seven body models are offered.

As its model number indicates, a top speed of 52 m.p.h. is claimed for these models, while acceleration, according to the Chrysler Corp., is said to be 8 sec. for from 5 to 25 m.p.h.

As on the 62 line recently announced, the "Red Head," Chrysler's high-compression head, is offered as standard equipment on the roadster, and is available at slightly extra cost on the other body models. These heads are designed for use with anti-knock fuels. Featuring engine changes, is a new down-draft type inlet manifold, including jacketed portion heated by exhaust gases. An air cleaner is provided on the carburetor air

intake to prevent dust from entering the engine.

External appearance of the cars has been enhanced by the use of more sweeping streamlining. Cadet visors are standard on closed models, and all models have bullet-type headlamps. Rear roof curves have been rounded off more than formerly, while tops on the open cars are decidedly lower. Body colors differ for the various body models, greys, greens and blues being used, with striped beadings and colored window reveals.

Visibility is improved in the 52 line through the adoption of narrower front pillars on the closed models, panels across the top of the windshields also being decreased in depth to increase visibility. Saddle-spring seat cushions have been adopted on all models to in-

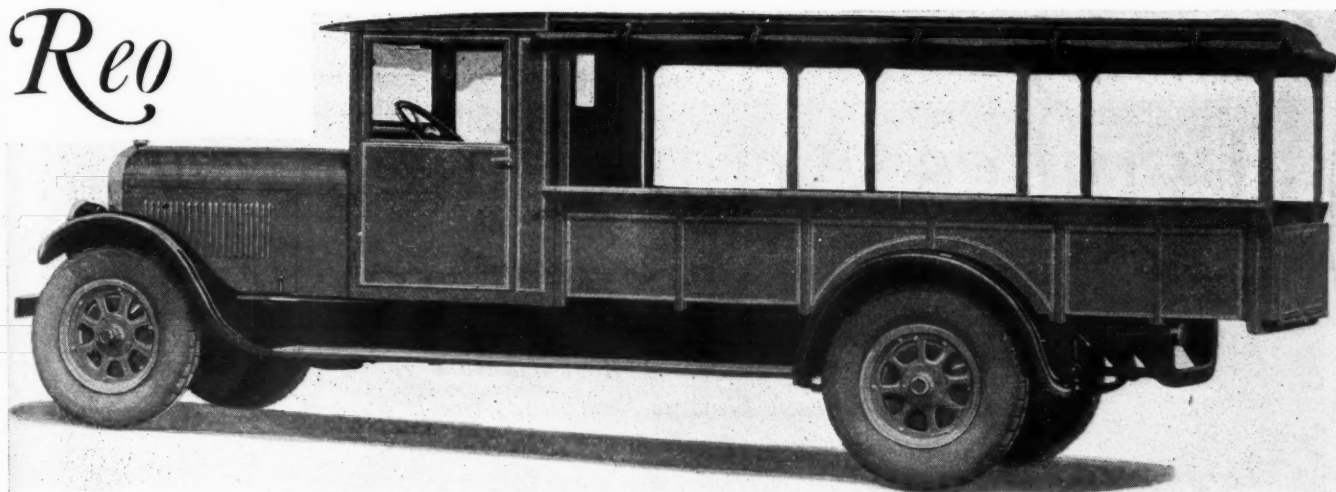
crease riding comfort. A new indirectly lighted instrument panel has been incorporated, similar to that used on the 62, and the Fed-co number plate is now located above this panel immediately below the windshield.

Standard equipment includes automatic windshield wiper, combination stop and tail light, foot rests and robe rails in the sedans.

Chrysler 52 Prices

5-pass. touring	\$750
2-4-pass. roadster	725
2-pass. coupe	725
2-door, 5-pass. sedan	735
4-door, 5-pass. sedan	795
5-pass. de luxe sedan	875

Reo



Reo speed wagon 2-ton express body. Transmission and engine are assembled in unit

Speed Wagon Additions Built to Meet Higher Highway Speeds

REO'S complete new line of Speed Wagons is gradually getting into production. The line will consist of five distinct chassis models. Two of these, the Junior Speed Wagon, with a six-cylinder special Continental engine, and the 1½-ton model with a chassis listing at \$1,345, have already been briefly described. (See MOTOR AGE, June 9, page 41.) In addition there will be a 12-passenger bus chassis edition of the 1½-ton model, this having a wheelbase of 143 in., and listing at \$1,445; a 1-ton model, which has not as yet reached the production stage; a 2-ton, 148-in. wheelbase model with chassis listing at \$1,645, and a 159-in. wheelbase 3-ton truck chassis listing at \$2,185.

In bringing out the new line of Speed Wagons, the governing idea in the design was to furnish truck operators with vehicles which were capable of maintaining higher road speeds in conformity with increased passenger car speeds on highways. To this end, frames have been lowered as far as possible, governors have been eliminated, four-wheel brakes have been included as standard equipment on all except the heavy duty 3-ton model, and power transmission has been designed for higher speeds.

Engines in all models except the Junior are practically identical with the Reo T-6, F-head engine formerly used, and are all six-cylinder. In contrast to former Speed Wagon design, however, transmission and engine are assembled in unit. Three-speed transmission is used on all except the 3-ton model which has a four-speed direct on fourth unit. Twelve-inch single-plate Brown-Lipe clutches are used on all except the Junior, and these models are furnished with bevel gear rear axles, 1½ and 2-ton model axles being semi-floating and the 3-ton having a full-floating axle, all manufactured by Reo. Gear reduction on the 2-ton model is 6.5 to 1, and on the 3-ton, 6.22 to 1 on high, and 23.26 to 1 on third.

Brakes on the 1½ and 2-ton chassis are of the internal expanding, mechanically operated type, with 14½-in. drums, the front drums being 2 in. wide, with a 3-in. drum width on the rear wheels. Brakes on the 3-ton model are dual internal expanding on the rear

wheels, drums being 16½ in. in diameter, with a width of 3 in. on the service, and 2¼ in. on the emergency brake lining. Emergency brakes on the 1½ and 2-ton models are located on the propeller shaft, with 9-in. drums, 3½ in. wide.

Front axles are of I-beam design, manufactured by Reo. Steering gears are also of Reo manufacture and of the bevel pinion and sector type. Two-unit North East electrical equipment is standard on all models. A Schebler carburetor is part of the fuel system. Chassis lubrication is by Myers magazine oilers. Springs are semi-elliptic throughout, with the following dimensions:

	Front	Rear
1½-ton	38½ by 2	50 by 2½
2-ton	38 by 2	50 by 2½
3-ton	38 by 2¼	50 by 3

Following also are chassis dimensions on the various models:

	Total Length	Overall Width	Dash to rear of frame	Width of frame
1½-ton	195-5/16	68	145½	40½
2-ton	211-5/16	68	160½	40½
3-ton	226-17/32	82½	176-17/32	40½

Stake bodies will be offered on all three of these chassis. In addition an express type body with short canopy and inclosed cab is offered on the 1½ and 2-ton models, and an open cab full length canopy on the 1½-ton chassis. The 143-in. bus chassis, which is identical except for length with the 1½-ton model, will be marketed without bodies.

Tires on the 1½-ton model are 32 x 6 pneumatics on malleable iron wheels. Tires on the 2-ton model are also 32 x 6 in. front, with 34 x 7 pneumatics on the rear, on the same type wheels. Dual 32 x 6 in. tires furnished on artillery type rear wheels on the 3-ton model, this chassis also having single 32 x 6 in. tires at the front.

Tiltray double filament headlights are standard on all models, with the light control on the steering wheel.

Economy Typifies Arrangement for a General Service Station

Layout Keeps All Principal Activities in Close Contact With Office and Stockroom, While a Storage Garage Surrounds the Whole With Separate Exit and Entrance

By Tom Wilder

HAVE corner lot 170 x 130 ft. to erect building for parking and general service accessory salesroom and gasoline pumps. Have you any unique, outstanding, economical building layout you can supply?—Service Motor Co., Fond du Lac, Wis.

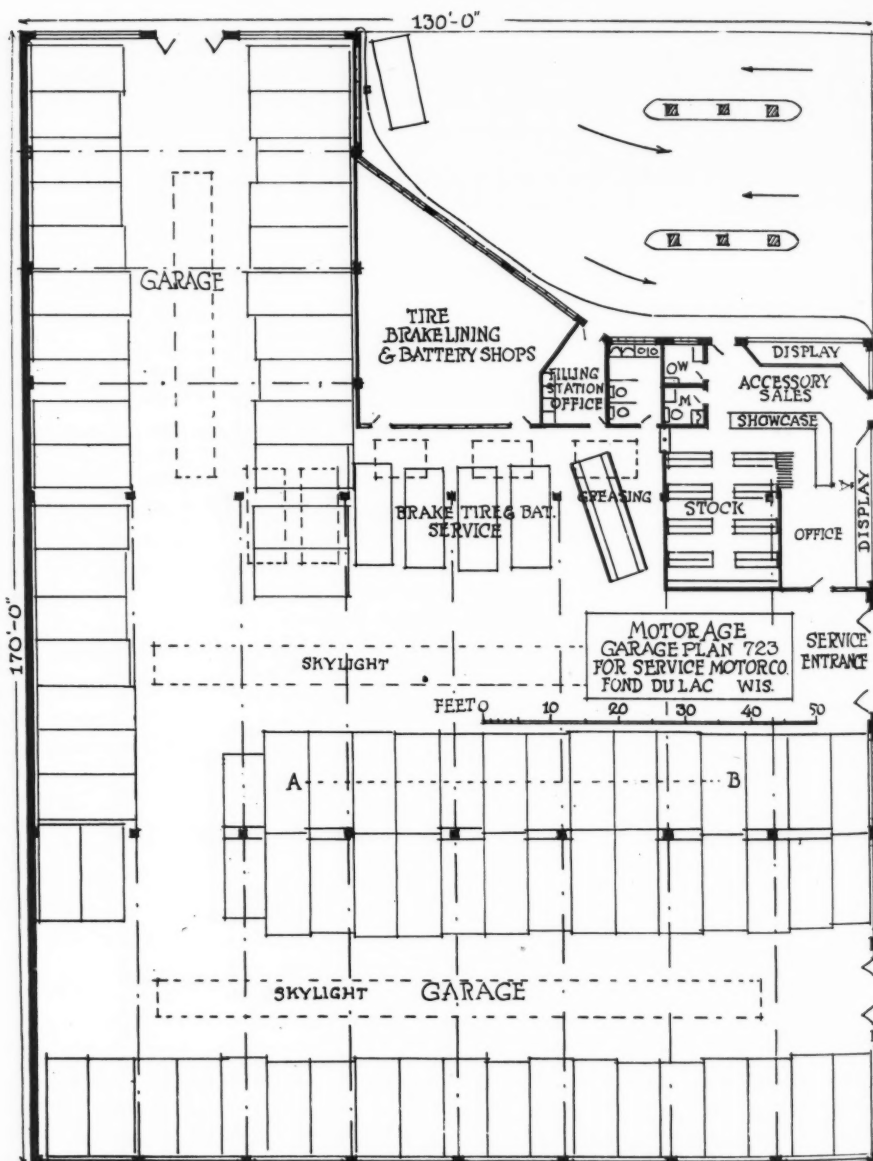
It would have been much better if you had written a letter in order that you could have given us more information than is contained in your telegram. "General Service Station" is such a loose term that it is hard to tell just what you have in mind. Usually we think it applies to the more common services—tires, batteries, brakes, greasing and oil changing, gasoline, washing, everything but the more serious repairs. Our layout is along this line but without any material changes repairing could be included.

If repairing is to be included we would suggest putting in a partition along the line of columns just back of the line "A-B." Against this partition would be a bench and along the bench, crosswise of the line "A-B," the cars would be faced. One end or the other of this space would be reserved for special equipment. The shop would extend to the aisle running from front to rear and have a partition at the end with a doorway through it into the aisle.

This arrangement would keep all the principal activities in close contact with the office and stockroom while the storage garage would surround the whole with a drive-in and drive-out all its own.

At the inside end of the service aisle there is a space that may be used for storage of three cars or for service of two cars—dotted positions.

We have not indicated a wash rack but it could be almost anywhere in the storage garage. The construction of this building is extremely simple, the trusses all being confined to one length, 50 ft., the only part not included being the service shop and accessory store, which could be taken care of by simple rafters with perhaps a post or two where spans are too long.



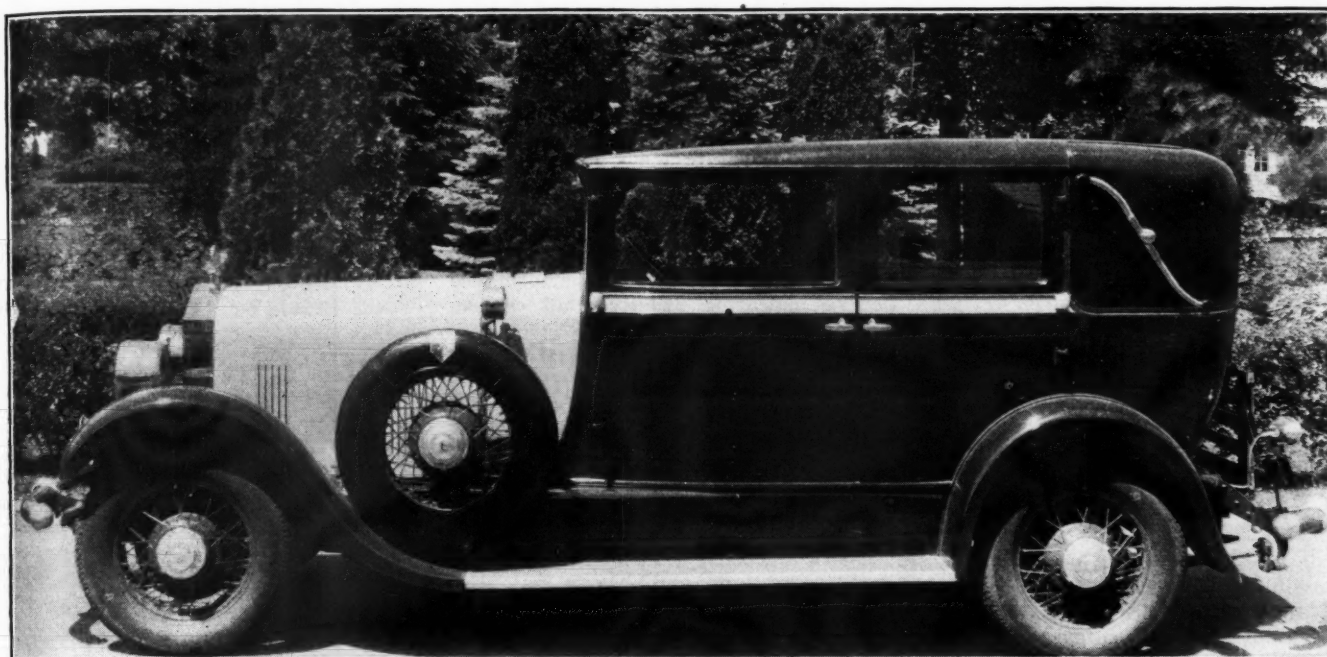
This building is not unique or outstanding but is a good, economically arranged layout and could be made unique by the proper architectural treatment of the exterior

A roof over the filling station does not seem necessary or desirable although a shelter over the pumps might be made small enough to be not detri-

mental to the accessory store.

If the additional repair service is installed, more skylight should be arranged for at this point.

TRAVEL AIR NEW ELCAR SERIES



Princess sedan of the Elcar new Travel Air series

THE Travel Air, named after the plane which recently flew to Hawaii, is the new series announced by the Elcar Motor Co.

The Travel Air series is powered with a Lycoming, eight-in-line engine having a $2\frac{7}{8}$ bore and $4\frac{3}{4}$ stroke.

The body of the Princess sedan is of the wood frame type of construction, with deep seats and high backs, and an extra-wide front door. Three color combinations are standard, as follows: Maroon, special green or chocolate brown body with cream belt, cowl, hood and wheels to harmonize.

Hot Weather Makes Hot Prospects Hotter

(Continued from page 39)

falls off very little in the hot months. The slump is so slight that any active salesman could attain his average monthly quota even if competing lines were equally active.

But the active salesman is helped by the fact that competitors, affected by the heat or the summer slump psychology, are apt to knock off work in July and August.

The man who sticks to his work is thus given a chance to exceed his average monthly quota. It is not to be wondered at that salaried men follow the lines of summer customs. But there is no excuse for the salesman who is paid in proportion to the orders he brings in.

Much of the summer slump is due to custom and human nature. We just "let down" a little in hot weather.

When we "let down" we are helping our active competitor. He knows human weakness and takes advantage of the general lazy spirit of summertime. He works while others sleep and play.

So, don't look upon August as a dead loss for you, Mr. Salesman.

Start out today with the idea that every owner of an old car is a hot prospect for one of your new cars,

and thank Old Sol for making every one of those hot prospects hotter.

Salesmen Under the X-Ray

(Continued from page 36)

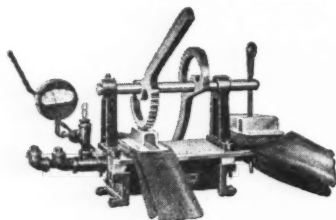
chased, but when a salesman comes to me and says the boss said I could use so and so, he just loses the order. When any man comes to me and says we can use so many of some friend's product, I very kindly offer to buy them for his account, and charge them to him.

Strange as it may seem I have a class of salesmen I like very much. The man who represents Wear-ever tires is a man of several years' experience in the tire business, and he is the only salesman I know who studies every phase of his business. When he comes around he never intrudes on my other duties, but he does take me to his room in the hotel at night, or comes to my office, and there he tells me all he has been able to learn about the condition of the tire and rubber market, the new things that are being brought out, even the good things his competitor is bringing out, and what I may expect in the next period in the wholesale market. Many times this information has enabled me to anticipate a price change to considerable advantage, for anything he tells me is reliable. Then he tells me what my competitors are doing and how they are securing business, and what they are securing from his and other companies. That done we go over my stock sheet very carefully. I buy, but he makes suggestions that are good, sometimes he suggests more, sometimes less, of a certain commodity, but whatever he suggests it is just what he would do if he were in my place. Sometimes he tells me things about the movement of his goods in my stock that I did not realize until he mentioned them. He studies his business and helps me study mine. He is to me more of a supervisor helping me to secure the best results from my buying than a salesman trying to get a large order. Through his help and guidance our business with his company has increased 300 per cent in the last two years.

New Accessories and Devices

Moll Tube Plates

THESE bumpers are manufactured by Moll Manufacturing Co., Denver, Col. Steam plates are electrically heated and the steam is held in wrought iron pipes just below the aluminum curing surface. The manufacturer claims that



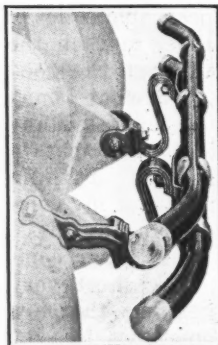
this method of construction makes it possible to use 20 times the ordinary steam pressure with safety. Each plate is equipped with a safety valve as an extra precaution.

A feature of this item is the patented clamp, which allows the operator to put a heavy pressure on to the tube to be repaired, in a second, and makes it possible, in conjunction with the steam pressure, to vulcanize the patch securely to the tire.

The Moll vulcanizer is furnished complete with electrical attachment cord and a set of iron blocks. Moll tube plates are guaranteed for a period of one year after purchase against defects in material or workmanship. List for VB-3, \$46.85; for VB-5, \$71.85.

Rahe-Flex Bumper

THESE bumpers are manufactured by the Rahe-Flex Mfg. Co., 3711 Beechmont Ave., Cincinnati. They are so designed as to flex when the crash



comes, the laminated bumper springs absorbing the shock. These springs, made in the shape of an "S" are made of the finest of steel and afford complete protection under all ordinary impacts.

The two massive bars are cold-drawn steel tubing supported on brackets by three sets of high-grade steel clamps. Both bumpers and bumperettes are manufactured by this company.

Goodell-Pratt Electric Drills

AN unusually complete and informative catalog has just been issued by the Goodell-Pratt Co., of Greenfield,

Mass. This catalog is devoted to a new product of the company—electric drills. These are made in sizes from $\frac{1}{8}$ in. to $\frac{3}{4}$ in. and incorporated the Goodell-Pratt standard of quality in all respects. The catalog not only pictures the drills and lists specifications, but, in addition, shows a performance curve indicating exactly what can be expected of each drill.

The catalog is very interesting and may be had for the asking.

Chanson Snubber

THIS is a snubbing device for the Chevrolet car, manufactured by the Illinois Iron & Bolt Co., Carpentersville, Ill. It is very fast in operation, smooth and velvety in action under all road conditions and has a patented principle that presents preloading or tying down of the springs and eliminates the "chatter" over car tracks and cobblestones.

This new snubbing device is ideal



with balloon tires and is so rapid in action that it stops gallop or bounce and reduces shimmy and side-sway.

It is very simple, yet rugged in construction, has only three moving parts, which are 600 per cent oversize, and is so perfectly provided that mud, dirt, gravel or water cannot affect the operation or change the tension. No adjusting of the strap is necessary after the device has been installed.

The list price complete for a set of four with special fittings is only \$22 list. Descriptive circulars and complete information will be mailed upon application to the manufacturer.

Grease and Oil Tank

RAPID distribution of grease or oil by air pressure, automatic and accurate measuring, efficient operation under any climatic conditions, and cleanliness, are the chief features of the new Aero combination grease and oil dispenser, which is manufactured by the Aero Liquid Meter Corp., 316 Commercial St., Los Angeles. The unit is

to be distributed soon to the automotive trade through the oil companies.

The air is introduced at the top of the lubricant under 100 to 110 lb. pressure. When the discharge nozzle



is opened, the air forces the product through the meter, out the nozzle, and into the point to be lubricated. The meter, located on the end of hose right by the hand, accurately and automatically measures the grease or oil being dispensed. The operator sees right before him the exact amount being delivered at all times. Each unit is equipped with two separate nozzles, one for grease, and the other for oil. Both grease and chassis oil may be dispensed from the one tank, with the same charge of air.

While the equipment is essentially designed for one-man operation, two men may work it at the same time.

Safety Light Extension

THE C & E safety extension, manufactured by the Ericson Mfg. Co., Cleveland, consists of 25 feet of high quality rubber-covered two-conductor cable with a universal attachment plug at one end protected by a C & E plug protector and a standard brass keyless lamp socket, with cord grip feature, protected by a C & E safety handle on the other end. Over the lamp socket is affixed a pressed steel lamp guard



with pivoted hook. Handles are made of special oil resisting rubber compound and the cable is designed for the roughest of service.

C & E safety handles have been approved by the Underwriters' Laboratories, Inc., Associated Factory Mutual Fire Insurance Companies and the Hydro Electric Commission of Canada.

Extensions are packed in individual cartons. List (without lamp) \$6.90

Vote for Your Candidate in the Popularity Contest for *Wholesale Salesmen* Grand Prize of \$500

Nine \$100 Prizes Nine \$50 Prizes Nine \$25 Prizes

TWENTY-SEVEN efficient and popular wholesale automotive salesmen will be awarded cash prizes in the nation-wide Popularity Contest inaugurated and conducted by *Motor World Wholesale*.

In each of the nine trading zones of the United States, the salesman who polls the greatest number of votes in his own zone, will receive a cash prize of \$100. The second highest in each zone will receive a cash prize of \$50, while the third highest in each zone will receive a cash prize of \$25.

The nine trading, or voting zones, are as follows:

NEW ENGLAND: Maine, New Hampshire, Vermont, Rhode Island, Massachusetts, Connecticut.

MIDDLE ATLANTIC: New York, New Jersey, Pennsylvania.

SOUTH ATLANTIC: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

EAST NORTH CENTRAL: Ohio, Indiana, Illinois, Michigan, Wisconsin.

EAST SOUTH CENTRAL: Kentucky, Tennessee, Alabama, Mississippi.

WEST NORTH CENTRAL: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

WEST SOUTH CENTRAL: Arkansas, Louisiana, Oklahoma, Texas.

MOUNTAIN: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada.

PACIFIC: Washington, Oregon, California.

The Grand Prize of \$500.00 cash will be awarded the candidate who polls the highest number of votes of any salesman in any of the nine zones.

This \$500 prize is in addition to the zone first prize of \$100, so top man will be awarded \$600 in real money.

In the event of tie high votes in any zone, or a tie vote for the Grand Prize of \$500, each tying candidate will receive the full prize award to which his votes entitle him.

Here then, is interest and incentive enough to start every dealer working and voting for his candidate, and to spur every wholesale automotive salesman to win the recognition which is justly due him.

Every retailer-dealer, garage owner, and service station proprietor is entitled to vote, and urged to vote,

whether he subscribes to any Chilton Class Journal publication or not.

Voting coupons will be found in current issues of *Motor Age*, *Automobile Trade Journal*, *Commercial Car Journal*, and *Chilton Catalog and Directory*.

Vote early, and vote as often as you like. You can cast all your votes for one man, or you can divide your votes among several candidates, but not more than one name may be placed on any one coupon.

Use the coupon below and help your favorite wholesale automotive salesman win a share of the Cash Prizes offered by *Motor World Wholesale*.

Address your envelope to Contest Editor, *Motor World Wholesale*, Chestnut and 56th Streets, Philadelphia.

—Use this Coupon—

MOTOR WORLD WHOLESALE Popularity Contest for Wholesale Salesmen

Contest Editor

Motor World Wholesale

Chestnut and 56th Sts., Philadelphia

In the wholesale automotive salesmen's popularity and efficiency contest I vote for:

Name of salesman

Name of his firm

His firm's address

Your signature

Your firm name

Address

M. A., August 4—This ballot is for ONE vote.

READERS' CLEARING HOUSE

Questions and Answers on Dealers' Problems

Is It Practicable to Reclaim Oil?

Can you tell me a way to filter oil that has been drained from crankcases, so that it will be suitable for use again?—J. F. Jester, Mitchell Auto Co., Magnolia, Ark.

RECLAIMING oil is perfectly practical under certain circumstances. It would be too much to expect of any oil reclaiming equipment, however, that the reclaimed oil would be of a high quality if the original oil that went into the machine was of an inferior grade. Consequently, reclaiming oil that is drained from miscellaneous crankcases is a rather questionable matter. On the other hand, however, reclaiming oil drained from crankcases of fleets of trucks, for example, where the operator knows the character of the oil used to begin with, has certain very definite advantages.

We have heard of oil reclaimers that ranged all the way from a felt hat, turned up-side-down, to a \$10,000 machine. You will appreciate, of course, that crankcase oil that has been in service, will contain gasoline, possibly some water, road dust, metallic particles, such as steel, cast iron and bab-bitt, and is sure to have a certain amount of free carbon in it. Naturally, a mere filter will not take out all of this material. It may remove the solidified matter satisfactorily, but it cannot take out the gasoline. Here it is necessary to apply heat in order to remove the diluent. Also, the application of heat is needed in order to take out moisture. In some cases the oil in addition to containing the materials just mentioned, will have a fairly high percentage of sulphuric acid in it. Naturally if this is not removed, the oil will be a dangerous lubricant. This sulphuric acid accumulates in some crankcases and comes from the kind of fuel used. Certain gasolines and benzols contain a small amount of sulphuric acid and this acid does not evaporate. Consequently, as dilution takes place some of the diluent may be driven off into the air, but the acid accumulates and gets stronger and stronger. A machine that can remove water, gasoline, acid and solid matter from the oil, is on the market, however, and we shall be very glad to give you the name and address of the manufacturer by separate letter.

Battery and Magneto on Pierce-Arrow

On a Pierce-Arrow Series 4, I expect to use double-distributor type magneto with double ignition, using horizontal spark plugs on the intake side in connection with a Westinghouse distributor for starting. Could these units be timed together? And who handles this style

of magneto?—Fred Bell, Grand Garage, San Francisco, Calif.

DUE to the difference in lag of the magneto and battery ignition, you could not get these two to function together satisfactorily over any decided range of speed. With regard to sources of supply for double magneto equipment, we will answer this question by separate letter.

Stopping Leaks in the Water Jacket

How can steel disks that close holes in the water jackets of an engine be made tight when water leaks at that point? Can we use a gasket or cement on these pieces to make them tight?—R. M. Jewett, 2013 McGee Ave., Berkeley, Calif.

THE steel disks should be installed with the convex side out. That is, these disks are curved and should be put in place so that the curve is out toward you. If these are tight when installed, they can be made very tight after the installation by lightly tapping them with the round end of a machinist's hammer. If they become loose in service it is better to replace them.

Placing Blame for Oil Gage Rattle

I have been having a great deal of trouble with the oil gage on several of the new Star Sixes. When the motor is idling or the car is traveling 20 miles an hour or less, the oil pressure gage on the dash rattles terribly. At times the hand vibrates from zero up to 40 lb. It does this continually until over 20 miles an hour or more has been reached.

I have replaced the gage oil line, put new gears in the oil pump, replaced the oil pump body with a new one, and have also taken down the oil reservoir. I did each of the above operations separately and all on the same car, but none of them individually nor all of them at one time did a bit of good.—Harry Banks, Dillon, Mont.

THE rattle in the oil pressure gage is due to the combination of a synchronizing period between the metallic instrument board, the metal gage line and the metallic pressure relief valve ball. It can be removed by cutting the gage line between relief valve and gage and inserting a 4 or 5-in. length of rubber hose which will serve to dampen the vibration and noise. It is advisable to flare the cut ends of this tube slightly so as to insure a tight joint when the hose is installed.

Fluctuation of the oil pressure gage hand is probably due to looseness of the

fitting at extreme end of oil pump suction line. A thorough examination of the screen assembly and the fitting at the end will reveal the exact cause of this fluctuation.

Loose Bearing Makes the Tight One Burn Out

We would like to know why it is that the connecting rod lower bearings on No. 2 and 5 cylinders in the engine of a Model 6-40 Moon burn out. These two rods have burned out three different times recently at 40 to 45 miles an hour. We have carefully checked the oil pressure and find that it is O.K. and the hole in the crankshaft is open so that the oil can get through freely.—Gehrs Service Station, 998 Boonville Ave., Springfield, Mo.

WE are going to suggest a lubrication test for your bearings to see just how the oil is getting to them. We accept your statement that the oil passages to the lower bearings of connecting rods 2 and 5 are open and that the oil can get through. However, we would suggest that you drop the bottom pan of the engine and connect an outside oil supply so as to bring oil under pressure to these bearings when the engine is at rest. This can be done by means of a can that will hold about a gallon of oil and which should be suspended 10 ft. over the car in order to give sufficient head or pressure. A tube connects from the can to the oil line of the engine.

Another method is to have a strong can filled with oil and connected to the oil line and by means of a tire valve apply air pressure to the can so that the oil is under 10 or 12 lb. pressure. Then go under the car with a good light and see that the oil drips uniformly from all bearings. If, in installing bearings 2 and 5, you drew them closer than the other connecting rod bearings, it is evident that the oil would pass out most readily through the loose bearings with the result that the tighter bearings, which had just been installed, would run low on oil.

Another possibility is that the shaft is out of round and we would suggest that you take a pair of micrometers and check this carefully from end to end and all the way round on each crank throw. If there is a difference in diameter more than .002 in., the journal should be trued up with a crankpin re-turning tool or else the shaft should be removed and reground. It is obvious that the lubrication system as a whole is functioning satisfactorily or other rods would burn out, and so we believe you will find that your shaft is either out of round or else loose bearings are permitting so much oil to escape that 2 and 5 are starved and, consequently, burn out.

What Effect Has Compression on Power?

Can you give us the approximate pressure at the moment of explosion in a gasoline engine cylinder? Of course this will vary according to design, compression and type of fuel used, but we understand that there is a practical formula used in figuring this pressure, and also the temperature developed, that is based on the compression ratio.—H. A. James, Washington Service Co., Hagerstown, Md.

YOUR question is a very interesting one and we are glad to go into this carefully. You do not say whether you wish the pressure per square inch or the pressure on the head of the piston, so we will give you both. The pressure per square inch is figured by checking first your compression. Upon ignition the pressure immediately increases to about five times the compression pressure. In other words, if you had a compression pressure of 80 lb. to the square inch, you would have an explosion pressure of 400 lb. to the square inch. If the compression wasn't so good and you had a compression pressure of 50 lb. to the square inch, you would have an explosion pressure of 250 lb. to the square inch. Now multiplying this by the area of the piston in square inches gives us the total pressure of the piston at the time of explosion. In order to get the number of square inches on the top of the piston, multiply the bore of the engine by itself, i. e., if there is a 3 in. bore, multiply 3 x 3, which will give us 9 sq. in. This would be the area of a square that size, but, as the circle is a little less than this, it is necessary to multiply it by .7854 to get the area of the circle. Then, multiplying this area by the explosion pressure, gives us the total pressure of the piston at the time of explosion. A 3½-in. piston has an area of 9.62 sq. in.

If this is installed in an engine that has a compression pressure of 50 lb. it will have an explosion pressure of approximately 250 lb. and the pressure on the pistons will be 2405 lb. If the compression is 60 lb., there will be an explosion pressure of 300 lb. and a total pressure on the piston of 2886 lb. If the compression is 70 lb. to the square inch, the explosion pressure will be 350 lb., and the total pressure on the piston will then be 3367 lb. If the compression pressure is 80 lb. the explosion pressure will be approximately 400 lb., giving a piston pressure of 3848 lb.

You will, therefore, see that a variation in compression of 10 lb. makes a difference in the working pressure of the piston of 481 lb. It is therefore highly important to watch the condition of valve and piston rings to see that they hold all the compression that the engine is designed to work with, and to use an oil that effectually seals the pistons against blow-by. The heat developed in an engine depends on the amount of fuel consumed. The unit of

A P. A. Assortment

In what year was the Pierce-Arrow, Series 4 car, with engine No. 14736 manufactured? — Fred Bell, Grand Garage, San Francisco, Calif.

THAT car was manufactured in 1916, but might be classified as a 1917 model.

What amount would the gear ratio be decreased on equipping this car with 34 by 7.30 tires?

THE original tire equipment was 36 by 4½ and changing to 34 by 7.30 will merely decrease the diameter 2 in. This will be the equivalent of a gear reduction of 2/36 or 1/18 which expressed in percentage is about 5½ per cent. This should give you slightly better acceleration, but we very much doubt if you will be able to notice the difference.

Would connecting the hot air intake to the carburetor with the breather on this engine, have a beneficial effect? There is a great amount of oil and gas vapor in the crankcase and I would like to know if it would be worth while to draw off with the suction from the carburetor as some of the latest cars do.

YOUR plan appears perfectly O. K. to us and we believe it will work out satisfactorily.

Are fiber timing gears practical on this particular type of engine?

IT would be our suggestion that you continue to use regular factory equipment, instead of changing to fiber gears.

What weight piston should be used on this engine. My idea is to reduce the weight of the reciprocating parts in order to improve the pick-up and speed somewhat. Also, what amount could I remove from the connecting rods by drilling in order to lighten them?

YOU will get satisfactory results from the use of typical light-weight alloy pistons, but do not drill the connecting rods to lighten them. The reduction in weight would only be slight and you would be running a long chance of weakening the rods seriously if you drill them.

Would the introduction of steam in the manifold stop the formation of carbon and increase the power?

YOUR idea has been worked on for a long while, but up to the present time no car is using this system, and consequently we do not believe it will be worth your while to experiment with it. In order to be effectual, the water consumption would be so great that you would have to carry a separate tank for water.

heat is the British thermal unit of which there are between 19,000 and 20,000 in one pound of gasoline. A British thermal unit is equivalent to 778 foot pounds of work or, expressed

another way, it is the amount of heat required to raise the temperature of one pound of water 1 deg. Fahr. at its maximum density which is 39.1 deg. Fahr.

Rayfield Adjustments

Please explain the adjustment on a Rayfield carburetor used as replacement equipment on a 1920 Oldsmobile. This carburetor is also used on a number of other cars.—Wm. P. Borge, 1513 N. Long Ave., Chicago, Ill.

WE are showing a cut of the Rayfield carburetor, indicating where low speed and high speed adjustments are made. One thing about adjusting a Rayfield carburetor that is different from some other makes, is that all adjustments are turned to the right instead of to the left for a richer mixture. Before making any adjustment be sure that there are no obstructions in the gasoline line, that manifold connections are absolutely tight and free from air leaks and that valves and ignition are properly timed and that there is a hot spark and good compression in all cylinders. Also, see that the engine and carburetor are thoroughly warmed up to running temperatures before changing any setting. Adjustments should always be made with the dash control down. In adjusting low-speeds have the throttle closed and close the nozzle needle by turning low speed adjustments to the left, until block "Y" slightly leaves contact with the cam "M." Then turn to the right about one and one-half turns, open throttle not more than one-fourth. Prime the carburetor by pulling steadily a few seconds on primer lever "G." Start motor and allow it to run until thoroughly warm. With retarded spark, close throttle until engine runs slowly without stopping. Turn the low speed adjustment to the left one notch at a time until the engine idles smoothly. If the engine does not throttle low enough, turn the stop arm screw to the left until it runs at the lowest number of revolutions desired.

To adjust the high speed, advance the spark about one-fourth. Open the throttle rather quickly. Should the engine back-fire it indicates a lean mixture. Correct this by turning the high-speed adjusting screw to the right, about one-quarter turn at a time, until the throttle can be opened quickly without back-firing. Should the engine not back-fire, turn the high speed adjusting screw to the left, until it does, then turn to the right until the engine runs smoothly. Adjustments made for high speed will in no way affect the low speed. Should the engine back-fire at intermediate speed after high and low speed adjustments have been made, turn the air valve adjustment "P" to the right, notch at a time, thereby decreasing the air supply and enriching the mixture. Bear in mind that it is well to use all air possible. Low speed adjustment must not be used to

READERS' CLEARING HOUSE

get a correct mixture at intermediate or high speeds. The automatic air valve should always be seated when the engine is throttled to its lowest speed.

Main Bearing Adjustment on Essex

We have a 1925 six-cylinder Essex that has a pound when it is first started in the morning when the engine is cold. After the engine becomes thoroughly heated the pound disappears or can be shorted by shorting No. 6 spark plug. What do you suppose is making this noise?—Wisconsin Subscriber.

THERE is no doubt that the noise is caused by a loose main bearing and we would accordingly suggest that you adjust this bearing and, at the same time, take up the others. The order in which this work is done is as follows:

Place a receptacle under the oil reservoir, remove oil reservoir drain plug and drain the engine oil. Raise up the front end of the car and place axle stand under the front axle. Remove the cap screws holding the oil reservoir to the crankcase and take off the oil reservoir. Remove spark plugs from the cylinder head, take out the cotter pins, the connecting rod bolts and loosen the cap of all rods slightly by backing off the nuts a turn or two. Remove the cotter pins from the main bearing studs and bolts and slightly back off the nuts. This will free the main bearings. The motor then should be cranked by hand and the freedom with which it revolves noted. Remove two cap screws passing through the lower part of the front gearcase cover into the bearing cap. Remove packing from the cap, using a small hook or else drill it out. Remove the nut from the front bearing stud, take off the washers, bearing cap and shims. Due to the tight fit of the front and rear bearing caps in the crankcase, the main bearing cap puller, which is specially made for this work and which may be had from any Essex service station, will prove of great assistance.

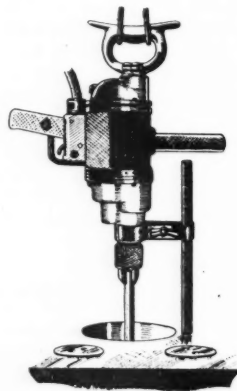
Take a .002 in. shim from each side of the bearing and replace the remaining shims in position exactly as they were before removal. Replace the bearing cap and washers and tighten the stud nuts securely, lining up the slots in the nuts with the cotter pin holds in the studs, then crank the engine by hand. If no additional resistance to turning is noted after the removal of one shim, the cap must again be removed and an additional shim or shims taken out. If the shim packs contain no thin shims, remove a .003 or .005 in. shim and replace with one shim which is .002 or .003 in. fit.

When making bearing adjustments it is necessary that the same thickness and number of shims be removed from each side of the bearing. Replace the bearing cap, draw up the stud nuts tightly and again test the bearing adjustment. If the bearing is still loose the above operation must be repeated

SHOP KINKS

Ideas that have proved useful

IN HONING cylinders I use a depth gage to keep the hone from passing through the cylinder and possibly opening up at the bottom of the cylinder bore. This consists of a simple clamp and a $\frac{3}{8}$ in. rod which can be set for any depth.—W. T. Folsom, 810 N. Washington, Ardmore, Okla.



Readers of MOTOR AGE are invited to submit ideas that they have found useful in doing some particular service job in the shop in a better or quicker way. For each one published \$2.00 will be paid. Whenever possible the idea should be accompanied by a sketch or diagram from which a drawing can be made.

until it is adjusted tight enough to offer a very slight resistance when turning the crank. After the proper adjustment of the front bearing has been obtained, the stud nuts should be loosened and the bearings freed up after which the other main bearings should be adjusted, following the same procedure.

In view of the fact that your difficulty is with the rear main bearing it may be better to start with that one instead of the front bearing. But, in any event you should follow the procedure outlined on all bearings. Due to the overhang of the flywheel, the rear bearing cap is provided with bolts instead of studs to allow the removal of the cap.

When removing the rear bearing the bolt should be pushed up out of the way so the cap and bearing may be withdrawn. When the adjustment of the bearing has been completed be sure to replace and spread the cotter pin in the stud and to fit new wick packing to the front and rear caps to guard against oil leakage at these points.

Would it be possible to replace the Hyatt roller bearing on the front end of the transmission main shaft on a 1925 Essex with a ball bearing to take the thrust, such as the 1927 Essex has. What changes, if any, would I have to make to put this on the 1925 Essex?

The changes would require such an outlay of time and material that the

cost would be out of all proportion to the advantages gained and, therefore, we would not recommend that this change be made.

Increasing Compression Ratio of Engines

I would like to know the compression ratios of the 1926 Advanced Six Nash and the 1925 Jewett cars.

Using Ethyl gasoline, would it be feasible to increase the compression ratio to 6 to 1? If so, how much would have to be taken off each cylinder head?

Would the installation of special split skirt alloy pistons increase the engine power, and would these pistons affect the engine balance?

—R. T. Kelley, Anaconda, Mont.

WE do not have the compression ratio of the 1926 Advanced Nash, but the 1925 Jewett car had a ratio of 4.6 to 1. We would judge that the Advanced Six Nash was in the same neighborhood. However, this information is of little value in calculating the amount of material to be removed from the cylinder head to bring about any desired compression ratio. Due to the irregular shape of the combustion chambers, it is quite difficult to calculate this and the general practice consists of removing just a little metal at a time and trying the car to see if objectionable detonation or knocking occurs. Of course, great care must be used in removing the metal and not more than $\frac{1}{8}$ in. should be taken off for fear of the valve interfering with some part. If it is found that too much metal has been taken off you can compensate for this by installing an extra cylinder head gasket or more if needed. The use of light-weight pistons is an advantage in increasing engine speed and acceleration, though we doubt if they would increase the actual power developed. An engine with heavy-weight pistons can be likened to a man trying to run a 100-yard dash with boots on. His acceleration would be very poor and his maximum speed would be considerably lower than if he had track shoes. So with automobiles, anything that can be done to reduce the weight of the reciprocating parts is an advantage in getting maximum speed and acceleration. These will not affect the balance of the engine, provided all pistons and rods are of the same weight.

Gargling Sound is Not a Sign of Trouble

When driving my Paige seven-passenger car, I notice a combination of rumbling, grating and hissing noises when I release the accelerator and stop feeding gas. Those noises continue while coasting. When feeding gas to the carburetor I can't hear anything objectionable. I shall appreciate your opinion as to the cause of this.—J. H. Peterson, 435 E. 79th St., Chicago, Ill.

THIS "gargling" sound is natural and a characteristic of the carburetor on that car. It is caused by the restriction in the size of the air passage and is made by the incoming air.

READERS' CLEARING HOUSE

Answers to Legal Questions

Collecting Storage on Attached Car

I had a car left in my garage in 1920 that was attached for a doctor bill and the suit is still in court. I haven't collected any storage to date and can't get any satisfaction from either side. I have mailed the statement to the sheriff, also the doctor, but got no reply nor pay for storage.

Can I get action as long as it is in court? If I can, how should I proceed to get my pay? The car isn't worth the storage.—W. F. Shulkey, Wild Horse Garage, Wild Horse, Colo.

NEITHER the sheriff nor doctor is a judge, nor is your case before a court whereby you could get a court order to dispose of the car in question for your storage charges. It may be you can bring your claim before the court on an intervening petition, therein asking the court for an order to sell for your charges. But if this case is in some higher court on appeal or for review for instance, you might get quicker action by proceeding to foreclose your lien in the usual manner.

But to do this, you should find out whether the car is still tied up by court order or encumbered by this litigation, and act accordingly. Even though your claim is a different action from the attachment proceedings, and perhaps has priority, unless the property has been released, your suit would find conflict in the courts, and might lead you into needless expense for ap-

peals, etc., and preclude bidders at any sale you might obtain while other court proceedings are pending against the car in question.

So, it would be best to intervene in this suit if possible and get court order for sale. Otherwise, you might assume the risks involved and establish your prior rights to the property by independent suit.

Responsibility for Goods Stolen from Car

Would like your opinion of the responsibility of the garage owner in the case as follows: A customer stores his car with us regularly. We are operating twenty-four-hour storage, having at all times at least one and usually two men on duty. This gentleman reported the loss of a valuable camera and a pair of field glasses from his car which, in his opinion, were taken while the car was in our care. Are we legally responsible for the value of these personal articles lost or stolen, and if so, upon whom does the burden of proof fall? In the sale of our storage we verbally contracted to store only the car and our opinion is that we are legally responsible only to the point of exercising ordinary precautions in safe keeping of this car. We will assume the responsibility of any personal articles left with us in the office. Is it necessary to have a notice stating we are not liable in case of theft?

AS a general proportion where you exercise ordinary precaution for the care of property, your responsibility

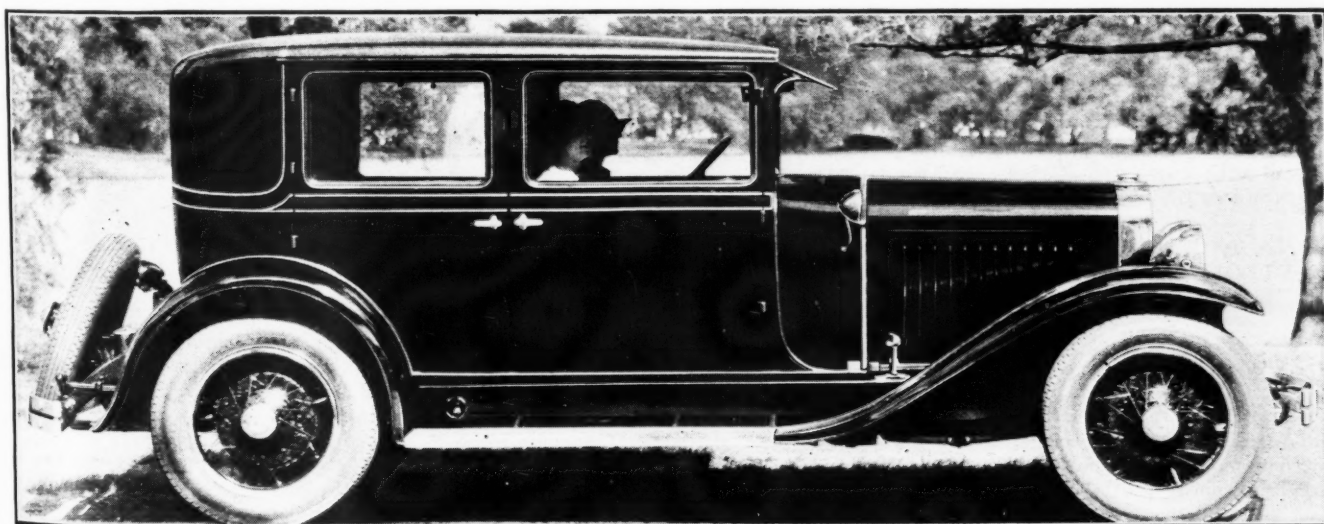
ceases. Where you provide special deposit of valuables of customers, especially if such be known to the customer, you are relieved from any special duty in respect to care and safety. The garagekeeper, while he is held only to use ordinary care, has the burden of proof to show he exercised the requisite care. All the customer need show to make a *prima facie* case is the contract of storage and delivery of car and failure to return upon demand. Notice of non-responsibility in case of fire and theft are not necessary as you are not responsible if due care has been exercised.

Attaching a Car for Parts and Labor

Is there any law in Ohio that will permit a garage owner to attach an automobile for parts and labor after he has let the owner have it?—A. M. Sturm, Saint Paris, Ohio.

THE garage owner may attach if parts were obtained by fraud—fraud being, in brief, any misrepresentation of a material fact made for the purpose of inducing you to relinquish possession of the repaired car.

Or attachment would lie if the customer is about to remove his property from the state, or is about to conceal and hide his property to beat your claim.

La Salle Town Sedan Embodies Novel Features

THE Cadillac Motor Car Co. announces this new La Salle five-passenger town sedan listing at \$2,650 f. o. b. Detroit, with wood wheels. The new car possesses characteristic La Salle lines and is distinguished by unusual features in seating arrangement, curves of the rear and design of the rear quarter. The rear seat has been moved

forward several inches closer to the driving seat giving practically the same effect as in a Victoria-type body. A cut-away under the rear of the front seat provides sufficient leg room for the rear seat passengers. The car has a wide front door and narrower rear door conforming in shape to the rear fenders.

PURRS AND PINGS



Add Qualifications of the Perfect Parts Man

MIDLAND, TEX.—Your article appearing on page 24, July 7, 1927, issue of MOTOR AGE is the best I have seen printed, and without being told I know that the person writing the article is or has been a parts man. No one not put through the grind could so well explain the few duties of a "Perfect Parts Man." The only item he missed was, "A good parts man must be a good stenographer and never mis-spell or misquote the boss."

I have always been a reader of MOTOR AGE and in the future I shall always look forward to the next issue, for I have at last found someone who understands the parts man. I thank you for printing that article.—Victor Smith.

A Parts Man of Parts

OTTUMWA, IOWA—I wish to congratulate you, sir, on the fine article in the July 7 issue of MOTOR AGE concerning "The Perfect Parts Man." It was very much to the point, and for the first time that I can remember, discusses the problems of the lowly parts man.

Here is hoping that car manufacturers and garage managers will stop, look and listen to the rise to a new place of the lowly parts man, one of education and recognition of the problems of parts men, realizing that an enormous amount of good will is dispensed with parts and advice over the Parts Man's Counter.—L. Ivan Norton.

Becky Holes in One Again

DETROIT—You are certainly getting out a snappy book, proving



a trade publication doesn't have to be dull to be good.—C. E. T. S.

A Woman-Hater, Obviously

PHILADELPHIA—I think your Mr. Swift is a bit hard on women drivers. They should not all be shot. Incarceration in some booby hatch would be restraint enough for some. Ask the man who knows!—L. C. W.

LETTERS to the editor from those whose "attention has been called"; from those who point with pride and those who view with alarm, from those who are easy to please and those who are hard to please; from those who are happy when they find a good thing and those who are happier when they find something they consider not so good; from those who boost and those who knock; from those who see the doughnut and those who see the hole; in other words, Dear Subscriber, from you and you and you—as well as from the man who borrows your copy of MOTOR AGE or reads it over your shoulder.

Our Right Foot Is Down to the Floorboard, C. C.

DETROIT—The writer checks with what Paul Zens had to say in the July 21 issue of MOTOR AGE, relating and appertaining to the results of your masterly efforts in making a publication that is so full of news and feature interest that the up-on-his-toes tradesman cannot get along without it.

During recent weeks the writer, and all other members of this organization, have gotten a pleasurable kick from MOTOR AGE. It reflects the editorial touch of a real newspaperman who has a broad general background of experience in the automotive industry—and knows how to present a bright, readable and instructive magazine that should not be passed up even in hot weather.

Keep 'er going ahead in high.—C. C.

If at First, You Don't

Succeed, Try, Try, Again

DETROIT—Now that I know the editor, I shall try to become more interested in MOTOR AGE.—Jay W. Dunivan.

Not Trade Paper, Mike,

It's a Business Paper

DETROIT—For the first time I am taking a real interest in a Trade Paper. Read your stuff and I think it's great.—Michael Todd.

Big Chief Ben Makes

Ye Modest Editor Blush

PONTIAC—A fellow just has to read MOTOR AGE these days if he wants to keep up with the procession. That "John Cleary touch" would make even the Dearborn Independent interesting. Best wishes from the four horsemen.—B. H. Anibal.

Mr. Bach, Please Let Trade

Bars Down for Sergt. Wild

CHICAGO—You ask what my business or vocation is. I am employed by the City of Chicago, Department of Police, as a sergeant of police for the past 16½ years. That ought not to stop me from being a reader of MOTOR AGE.—Percy Wild.

First He's Cold

JOHNSON CITY, TENN.—I have been waiting ever since you started in the fore part of June to pep up MOTOR AGE, to see just how long you could keep up the good work. In a monthly publication I should expect that it would be possible to keep it alive and up-to-the-minute, but I have expected with each issue, that your book, being as it is a weekly, would sooner or later come a flop, and sure enough, with the issue of the July 21 you did it: I mean you failed to keep up the pace. Well, I don't blame you; I have been a reader of MOTOR AGE for many years, and even the present issue suits me



good enough. But I'm kind of sorry you had to fall down after getting such a good start. But believe me, I am for you just the same.—G. H. B.

—Then He's Hot

JOHNSON CITY, TENN.—I sure am glad to take pen in hand to say that my former letter was all wrong; the July 28 issue has just come to hand and it is the berries, as the fellow says. It is the best looking and the most interesting magazine you have put out since I have been a reader of MOTOR AGE, which I imagine is about 12 years. So more power to you.—G. H. B.

Prices, Weight and Equipment of Current Passenger Car Models

Important Changes in Specifications and Price Tables since last issue.

**BUICK
LA SALLE
PACKARD
PIERCE ARROW
STUDEBAKER**

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
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AUBURN				
6-60"				
2-4p. Roadster...	\$1095	2	aeghrw	
5p. Touring...	1145	4	aeghrw	
2-4p. Cabriolet...	1295	2	aeghrw	
5p. Sp. Sedan...	1195	2	aeghrw	
5p. Sedan...	1295	4	aeghrw	
5p. Ward. Sedan...	1345	4	aeghrw	
BUICK				
115"				
2-4p. Sp. Rdstr...	\$1195	2	aeghmpr	
5p. Touring DeL...	1225	4	aeghmpr	
2-4p. Coupe...	1195	2	aeghmpr	
5p. 2d. Sedan...	1195	2	aeghmpr	
5p. 4d. Sedan...	1295	4	aeghmpr	
5p. Ctry. Club...	1275	4	aeghmpr	
5p. Town Bro'm...	1375	4	aeghmpr	
120"				
4p. Coupe...	1465	2	aeghmpr	
5p. 4d. Sedan...	1495	4	aeghmpr	
5p. Town Bro'm...	1575	4	aeghmpr	
128"				
2-4p. Sp. Rdstr...	1495	2	aeghmprw	
5p. Sp. Touring...	1525	4	aeghmprw	
5p. Coupe...	1850	2	aeghmpr	

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
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3p. Ctry. Club...	1765	2	3905	aghmnor
5p. Bro. Sedan...	1925	4	4050	aghmnoaru
7p. Sedan...	1995	4	4115	aghmnot

CADILLAC

"Standard"

132" W.B.

5p. Brougham...	\$2995	2	4170	aghlmptr
2p. Coupe...	3100	2	4105	aghlmptr
5p. Victoria...	3195	2	4190	aghlmptr
5p. Sedan...	3250	4	4270	aghlmptr
2p. Sp. Coupe...	3500	2	4460	aghlmptr

5p. Sp. Sedan...	3650	4	4590	aghlmptr
138" W.B.				
7p. Sedan...	3400	4	4420	aghlmptr
7p. Imperial...	3535	4	4480	aghlmptr

"Custom"				
132" W.B.				
2p. Roadster...	3350	2	4220	aghlmptr
2p. Conv. Coupe...	3450	2	4300	aghlmptr

138" W.B.				
7p. Touring...	3450	4	4285	aghlmptrw
4p. Phaeton...	3450	4	4275	aghlmptrw
4p. Sp. Phaeton...	3975	4	4705	aghlmptrw

5p. Coupe...	3855	2	4465	aghlmptrw
5p. Sedan...	3995	4	4465	aghlmptrw
7p. Suburban...	4125	4	4580	aghlmptrw
7p. Im. Suburb...	4350	4	4615	aghlmptrw

CHANDLER

"Big Six"

2-4p. Roadster...	\$1695	2	3200	Ahmnrw
7p. Touring...	1695	4	3360	Ahmnrw
5p. Met. Sedan...	1595	4	3570	Ahmnrw
4p. Coupe...	1675	2	3485	Ahmnrw
4p. Ctry. Club...	1675	2	3435	Ahmnrw
5p. DeL. Sedan...	1695	4	3570	Ahmnrw
7p. Sedan...	1895	4	3725	Ahmnrw

"Spec. Six"				
5p. Touring...	1145	4	2890	Ahmnrw
5p. Sp. Touring...	1295	4	2940	Ahmnrw
3p. Coupe...	1195	2	3050	Ahmnrw
3p. DeL. Coupe...	1285	2	3050	Ahmnrw
5p. Sedan...	1295	4	3270	Ahmnrw
5p. Sedan DeL...	1345	4	3270	Ahmnrw

"Std. 6"				
5p. Touring...	945	4	2475	Ahmnrw
5p. DeL. Touring...	1005	4	2565	Ahmnrw
2-4p. Rdstr...	1135	2	2470	Ahmnrw
5p. Sedan...	995	4	2740	Ahmnrw
3p. Coupe...	1035	2	2630	Ahmnrw
5p. DeL. Sedan...	1135	2	2740	Ahmnrw
3p. DeL. Coupe...	1125	2	2630	Ahmnrw

"Roy. St. 8"				
7p. Touring...	2195	4	3645	Ahmnrw
4p. Roadster...	2195	2	3435	Ahmnrw
4p. Coupe...	2195	2	3610	Ahmnrw
4p. Ctry. Club...	2195	2	3610	Ahmnrw
5p. Sedan...	2195	4	3760	Ahmnrw
7p. Sedan...	2295	4	3870	Ahmnrw

"AA"				
2p. Roadster...	\$ 525	2	1890	dr
5p. Touring...	525	4	1965	dr
2p. Util. Cpe...	625	2	2090	dhr
5p. Coach...	595	2	2190	dhr
5p. Sedan...	695	4	2275	dhr
2-4p. Cabriolet...	715	2	2135	dhr
5p. Land. Sedan...	745	4	2270	dhr
Imp. Land...	780	4	2260	dhr

"Chevrolet"				
2p. Roadster...	\$ 525	2	1890	dr
5p. Touring...	525	4	1965	dr
2p. Util. Cpe...	625	2	2090	dhr
5p. Coach...	595	2	2190	dhr
5p. Sedan...	695	4	2275	dhr
2-4p. Cabriolet...	715	2	2135	dhr
5p. Land. Sedan...	745	4	2270	dhr
Imp. Land...	780	4	2260	dhr

"Chevrolet"				
2p. Roadster...	\$ 525	2	1890	dr
5p. Touring...	525	4	1965	dr
2p. Util. Cpe...	625	2	2090	dhr
5p. Coach...	595	2	2190	dhr
5p. Sedan...	695	4	2275	dhr
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5p. Land. Sedan...	745	4	2270	dhr
Imp. Land...	780	4	2260	dhr

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Imp. Land...	780	4	2260	dhr

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5p. Coach...	595	2	2190	dhr
5p. Sedan...	695	4	2275	dhr
2-4p. Cabriolet...	715	2	2135	dhr
5p. Land. Sedan...	745	4	2270	dhr
Imp. Land...	780	4	2260	dhr

"Chevrolet"				
2p. Roadster...	\$ 525	2	1890	dr
5p. Touring...	525	4	1965	dr
2p. Util. Cpe...	625	2	2090	dhr
5p. Coach...	595	2	2190	dhr
5p. Sedan...	695	4	2275	dhr
2-4p. Cabriolet...	715	2	2135	dhr
5p. Land. Sedan...	745	4	2270	dhr
Imp. Land...	780	4	2260	dhr

"Chevrolet"				
2p. Roadster...	\$ 525	2	1890	dr
5p. Touring...	525	4	1965	dr
2p. Util. Cpe...	625	2	2090	dhr
5p. Coach...	595	2	2190	dhr
5p. Sedan...	695	4	2275	dhr
2-4p. Cabriolet...	715	2	2135	dhr
5p. Land. Sedan...	745	4	2270	dhr
Imp. Land...	780	4	2260	dhr

"Chevrolet"				
2p. Roadster...	\$ 525	2	1890	dr
5p. Touring...	525	4	1965	dr
2p. Util. Cpe...	625	2	2090	dhr
5p. Coach...	595	2	2190	dhr
5p. Sedan...	695	4	2275	dhr
2-4p. Cabriolet...	715	2	2135	dhr
5p. Land. Sedan...	745	4	2270	dhr
Imp. Land...	780	4	2260	dhr

"Chevrolet"				
2p. Roadster...	\$ 525	2	1890	dr
5p. Touring...	525	4	1965	dr
2p. Util. Cpe...	625	2	2090	dhr
5p. Coach...	595	2	2190	dhr
5p. Sedan...	695	4	2275	dhr
2-4p. Cabriolet...	715	2	2135	dhr
5p. Land. Sedan...	745	4	2270	dhr
Imp. Land...	780	4	2260	dhr

"Chevrolet"				
2p. Roadster...	\$ 525	2	1890	dr
5p. Touring...	525	4	1965	dr
2p. Util. Cpe...	625	2	2090	dhr
5p. Coach...	595	2	2190	dhr
5p. Sedan...	695	4	2275	dhr
2-4p. Cabriolet...	715	2	2135	dhr
5p. Land. Sedan...	745	4	2270	dhr
Imp. Land...	780	4	2260	dhr

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
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CHRYSLER "50"				
5p. Touring...	\$750	4	2145	ar
2p. Roadster...	750	2	2025	ar
2-4p. Roadster...	795	2	2130	ar
2p. Coupe...	750	2	2230	ar
5p. Coach...	780	2	2335	ar
5p. Sedan...	830	4	2410	ar
5p. Land. Sedan...	885	4	2350	ahr

"62"				
5p. Touring...	1095	4	2570	aghnr
2-4p. Roadster...	1175	2	2615	aghnrw
3-5p. Coupe...	1245	2	2685	aghnr
5p. Coach...	1145	2	2795	aghnr
5p. Sedan...	1245	4	2835	aghnr
Land. Sedan...	1295	4	2835	aghnr

"70"				
2-4p. Roadster...	1495	2	2845	aghnmrw
5p. Phaeton...	1395	4	2930	aghnmrw
5p. Sp. Phaeton...	1495	4	2905	aghnmrw
4p. Coupe...	1595	2	2905	aghnmrw
2-4p. Roy. C'pe...	1545	2	3000	aghnmrw
5p. Brougham...	1525	2	3090	aghnmrw
5p. Roy. Sedan...	1595	4	3150	aghnmrw
2-4p. Cabriolet...	1745	2	2935	aghnmrw
5p. Crown Sedan...	1795	4	3160	aghnmrw

"80"				
185 1/2"				
2-4p. Roadster...	2595	2	3805	Beghlmptrw
5p. Phaeton...	2495	4	3765	Beghlmptrw
5p. Sedan...	2675	4	3805	Beghlmptrw
5p. Coupe...	3095	2	4110	Beghlmptrw

5p. Sedan...	3095	4	4055	Beghlmptrw
4p. Coupe...	2895	2	4090	Beghlmptrw
2p. Cabriolet...	3495	2	4025	Beghlmptrw
5p. Sportif...	3995	4	4335	Beghlmptrw
7p. Sedan...	3295	4	4195	Beghlmptrw
7p. Sedan. Lim...	3595	4	4370	Beghlmptrw
5p. Town Car...	5495	4	4432	Beghlmptrw

CUNNINGHAM				
"V-7"				
7p. Touring...	\$6650	4	4600	Ceghlmptrw
4p. Sp. Touring...	6150	4	4500	Ceghlmptrw
4p. Coupe...	7600	2	4700	Ceghlmptrw
6p. Limousine...	8100	4	5000	Ceghlmptrw

Prices, Weights and Equipment of Current Passenger Car Models

Passenger and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
FORD "T"				
2p. Runabout.....	\$360	2	1658 a	
5p. Touring.....	380	4	1732 a	
2p. Coupe.....	485	2	1820 a	
5p. Tudor Sedan.....	495	2	1950 a	
5p. Fordor Sedan.....	545	4	2002 B	
FRANKLIN "11-B"				
3p. Spt. Rdster.....	\$2690	2	3015 aeghklrx	
5p. Touring.....	2635	4	2975 aeghklprx	
3p. Coupe.....	2490	2	3105 aeghklprx	
3-5p. Coupe.....	2565	2	3150 aeghklprx	
4p. Victoria.....	2740	2	3165 aeghklprx	
5p. Sedan.....	2790	4	3230 aeghklprx	
5p. Ox. Sedan.....	2815	4	3230 aeghklprx	
5-7p. Sedan.....	2840	4	3240 aeghklprx	
5p. Spt. Sedan.....	2910	4	3305 aeghklrx	
7p. Limousine.....	2940	4	3360 aeghklprx	
GARDNER "80"				
4p. Roadster.....	\$1395	2	3030 amn	
4p. Rdstr. DeL.....	1495	2	3030 aeghmnr	
5p. Bro'm Coupe.....	1695	2	3375 amn	
4p. Vic. Coupe.....	1695	2	3375 amn	
5p. Sedan.....	1695	4	3370 amn	
5p. Sedan DeL.....	1795	4	3370 aeghmnr	
5p. Bro. Cpe. DeL.....	1795	2	3375 aeghmnr	
4p. Vic. Cpe. DeL.....	1795	2	3375 aeghmnr	
2-4p. Roadster.....	1995	2	3400 degmnr	
4p. Land. Rdstr.....	2295	2	3475 degmnr	
5p. Brougham.....	2295	4	3690 degmnmrt	
5p. Sedan.....	2295	4	3730 degmnmrt	
5p. Victoria.....	2295	4	3690 degmnmrt	
HUDSON "Super Six"				
"Std. Line"				
5p. Coach.....	\$1285	2	3505 aghjmnr	
5p. Sedan.....	1385	4	3620 aghjmnr	
"Custom"				
7p. Phaeton.....	1600	4	3565 agmnr	
4p. Brougham.....	1575	4	3660 aghjmnru	
7p. Sedan.....	1850	4	3870 aghjmnru	
HUPMOBILE "A-1"				
5p. Touring.....	\$1325	4	2620 cghnr	
2-4p. Roadster.....	1385	2	2660 aghnr	
2-4p. Coupe.....	1385	2	2800 cghnr	
5p. Sedan.....	1385	4	2800 cghnr	
5p. Brougham.....	1385	2	2890 cghjn	
"E-3"				
5p. Touring.....	1945	4	3300 cghnr	
7p. Touring.....	2045	4	3360 beghnr	
2-4p. Roadster.....	2045	2	3355 ceghnr	
5p. Brougham.....	2245	2	3515 j	
2-4p. Coupe.....	2345	2	3465 dghrx	
5p. Sedan.....	2345	4	3545 aghxr	
5p. Victoria.....	2345	2	3525 aeghnr	
7p. Sedan.....	2495	4	3360 ehr	
7p. Sedan Lim.....	2595	4	3360 aeburx	
JORDAN "R"				
4p. Blue Boy.....	\$1745	2	2775 aghjmnrx	
4p. Spt. Salon.....	1595	2	2775 aghjmnrx	
2-4p. Tomboy.....	1595	2	2775 aghjmnrx	
5p. Sedan.....	1595	4	2775 aghjmnrt	
"J-1"				
4p. Playboy.....	1545	2	2915 aghmnrx	
2-4p. Sp. Coupe.....	1695	2	3070 aghmnrx	
5p. Cus. Sedan.....	1695	4	3200 aghmnrtx	
4p. Cus. Vict.....	1695	2	3200 aghlmnrxt	
"AA"				
2-4p. Playboy.....	2345	2	3200 aghmnrx	
2-4p. Sp. Coupe.....	2495	2	3340 aghmnrx	
4p. Cus. Vict.....	2495	2	3470 aghlmnrxt	
5p. Cus. Sedan.....	2495	4	3470 aghmnrtx	
KISSEL "6-55"				
124" W.B.				
5p. Phaeton.....	\$1685	4	3020 ahmnr	
4p. Speedster.....	1895	2	3160 ah	
4p. Coupe Rd.....	1895	2	3483 ahmnr	
5p. Brougham.....	1695	2	3300 ahmnr	
5p. Spec. Bro'm.....	1795	2	3486 ah	
5p. Bro'm Sedan.....	1895	4	3440 ah	
5p. Conv. Bro'm.....	2295	4	3378	
131" W.B.				
7p. Touring.....	1785	4	3660 ah	
4p. Tourster.....	1895	4	3225 ahmnr	
5p. Br'm Sedan.....	2085	4	3596 ah	
7p. Sedan.....	2295	4	3770 ahmnr	
"6-65"				
125" W.B.				
5p. Phaeton.....	1885	4	3240 ahmnr	
4p. Speedster.....	2095	2	3155 ahmnr	
4p. Cpe. Rdstr.....	2095	2	3343 ahmnr	
5p. Brougham.....	1895	2	3330 ahmnr	
5p. Spec. Bro'm.....	1995	2	3345 ahmnr	
5p. Bro'm Sedan.....	2095	4	3400 ahmnr	
5p. Conv. Bro'm.....	2495	4	3518 ahmnr	
132" W.B.				
7p. Touring.....	1985	4	3360 ahmnr	
4p. Tourster.....	2095	4	3155 ahmnr	
5p. Bro'm Sedan.....	2295	4	3455 ahmnr	
7p. Sedan.....	2495	4	3630 ahmnr	
"6-75"				
131" W.B.				
5p. Phaeton.....	2185	4	3220 ahmnr	
4p. Speedster.....	2395	2	3360 ahmnr	
4p. Cpe. Rdstr.....	2395	2	3578 ahmnr	
5p. Brougham.....	2195	2	3565 ahmnr	
5p. Spec. Bro'm.....	2295	2	3671 ahmnr	
5p. Bro'm Sedan.....	2395	4	3760 ahmnr	
5p. Conv. Bro'm.....	2795	4	3863 ahmnr	
139" W.B.				
7p. Touring.....	2285	4	3630 ahmnr	
4p. Tourster.....	2395	4	3335 ahmnr	
5p. Bro'm Sedan.....	2595	4	3755 ahmnr	
7p. Sedan.....	2795	4	3975 ahmnr	
5p. Sedan DeL.....	2985	4	3910 aeghimorvx	
7p. Sedan DeL.....	3495	4	4080 aeghimorvx	
7p. Ber. Sedan.....	3585	4	4125 aeghimorvx	
LA SALLE				
2-4p. Roadster.....	\$2525	2	3702 aeghlmnprx	
4p. Phaeton.....	2495	4	3716 aeghlmnprx	
2-4p. Coupe.....	2585	2	3834 aeghlmnprx	
2-4p. Conv. Cpe.....	2635	2	3834 aeghlmnprx	
4p. Victoria.....	2635	2	3795 aeghlmnprx	
5p. Town Sedan.....	2650	4		
5p. Sedan.....	2685	4	4063 aeghlmnprx	
LINCOLN "8"				
2p. Spt. Rdster.....	\$4600	2	24930 aegklprx	
7p. Spt. Touring.....	4600	4	44920 aegklprx	
4p. Phaeton.....	4600	4	4960 begklprx	
4p. Coupe.....	4600	4	4910 aegklprx	
4p. Sedan.....	4800	4	5030 aegklprx	
5p. Sedan.....	4800	4	5030 aegklprx	
7p. Sedan.....	5000	4	5050 aegklmnprx	
7p. Limousine.....	5200	4	5180 aegklprx	
LOCOMOBILE "8-70"				
5p. Brougham.....	\$1975	4	3330 afgbkmnrx	
5p. Sedan.....	1975	4	3335 afgbkmnrx	
Collap. C'pe.....	1995		afgbkmnrx	
DeL. Sedan.....			afgbkmnrx	
5p. DeL. Bro'm.....				
"8-80"				
4p. Spt. Touring.....	2850		aeghklmnprt	
4p. Collap. Coupe.....				
5p. Sedan.....				
5. Brougham.....				
7p. Sedan.....				
7p. Sub. Sedan.....				
"48"				
4p. Sportif.....	4	5030	afghjklrx	
Roadster.....				
7p. Touring.....				
7p. Tour Lim.....				
6p. Brougham.....				
5p. Vic. Sedan.....				
7p. Lim. Enc. Dr.....				
7p. Cabriolet.....				
"90"				
4p. Sportif.....	5900	4	4475 aeghklmnpr	
4p. Roadster.....				
7p. Touring.....				
5p. Vic. Sedan.....				
7p. Suburban.....				
Vic. Sed.....				
7p. Town Bro'm.....				
7p. Cabriolet.....				
Collap. Cab.....				
MCFARLAN				
"Str. 8"				
131" W.B.				
4p. Roadster.....	\$3050	2	3400 Ceghlmnprx	
5p. Touring.....	3180	4	3400 afghmrx	
4p. Sp. Phaeton.....	3180	4	3400 alghimprx	
4p. Coupe.....	3180	2	3650 afghlmnprx	
5p. Sedan.....	3180	4	3650 afghlmnprx	
5p. Coach Bro'm.....	3180	4	3650 afghlmnprx	
5p. Town Car.....	4600	4	3750 afghlmnprx	
136" W.B.				
7p. Sedan.....	3680	4	3700 afghlmnprx	
7p. Sub. Sedan.....	3780	4	3700 afghlmnprx	
"TV"				
2p. Roadster.....	5800	2	4000 Aeghlmnorx	
4p. Spt. Tour.....	5600	4	4600 Ceghlmnorx	
4. Tour. Sedan.....	6720	4	5200 Cfghlmnop	
7p. Touring.....				
6p. Sedan.....				
7p. Sub. Sedan.....				
7p. Town Car.....				
MARMON				
"Little"				
2p. Speedster.....	\$1895	2	3019 aeghlmnprx	
4p. Speedster.....	1965	4	2977 aeghlmnprx	
4p. Sedan.....	1795	2	3039 aeghlmnprx	
2p. Coupe.....	1895	2	3053 aeghlmnprx	
4p. Brougham.....	1895	3090		
4p. Sedan.....	1895	4	3062 aeghlmnprx	
2p. Coupe Rdstr.....	1995	2	3054 aeghlmnprx	
4p. Victoria.....	2595	2	3116 aeghlmnrtx	
5p. Cus. Sedan.....	2595	4	3119 aeghlmnrtx	
5p. Cus. Sedan.....	2595	4	3172 aeghlmnrtx	
4p. Town Cab.....	3125	4	3040 aeghlmnrtx	
"E-75"				
2p. Speedster.....	3485	2	4251 aeghlmnprx	
4p. Speedster.....	3485	2	4256 aeghlmnprx	
5p. Phaeton.....	3485	4	4017 aeghlmnprx	
7p. Tour. Speed.....	3565	4	4480 aeghlmnprx	
2p. Coupe Rdstr.....	3565	2	4374 aeghlmnprx	
5p. Town Coupe.....	3195	2	4452 aeghlmnprx	
2p. Coupe.....	3485	2	4373 aeghlmnprx	
4p. Victoria.....	3485	2	4346 aeghlmnprx	
5p. Brougham.....	3565	4	4525 aeghlmnprx	
5p. Sedan.....	3565	4	4498 aeghlmnprx	
7p. Sedan.....	3640	4	4620 aeghlmnprx	
5p. Cus. Sedan.....	3960	4	4515 aeghlmnprx	
7p. Cus. Sedan.....	4075	4	4678 aeghlmnprx	
7p. Cus. Limou.....	4175	4	4718 aeghlmnprx	
MOON "6-60"				
3p. Roadster.....	\$995	2	2295 an	
5p. Phaeton.....	995	4	2340 an	
3-5p. DeL. Rdstr.....	1095	2	2330 dn	
3-5p. Roy. Rdstr.....	1195	2	2330 anw	
3-5p. Roy. Cab.....	1195	2	2375 an	
3-5p. Cab. Rdstr.....	1045	2	2375 an	
5p. Coach.....	1145	2	2430 an	
5p. 2d. Sedan.....	1195	2	2520 ahn	
5p. Roy. Sedan.....	1245	4	2605 dn	
5p. 4d. Sedan.....	1245	4	2605 ahn	
5p. Roy. Sedan.....	1295	4	2605 ahn	
5p. Cust. Sedan.....	1395	4	2605 ahn	
"A"				
5p. Touring.....	1195	4	2560 dn	
5p. Roy. Rdstr.....	1595	2	2720 dn	
5p. Cab. Rdstr.....	1595	2	2720 dn	
Collap. Cab.....	1795			
5p. Sedan DeL.....	1395	2	2710 dno	
5p. Sedan DeL.....	1545	4	2860 dno	
Spec. Sedan.....	1545	4		
NASH				
"Std. 6"				
5p. Touring.....	\$865	4	2235 Dghnr	
2p. Coupe.....	875	2	2345 Dghnr	
5p. Sedan.....	895	2	2450 Dghnr	
5p. Sedan.....	995	4	2500 Dghnr	
5p. Land. Sedan.....	1085	4	2610 Dghnr	
"Special"				
4p. Roadster.....	1225	2	2980 Dghnr	
5p. Touring.....	1135	4	2980 Dghnr	
4p. Cabriolet.....	1290	4	3070 Dghnr	
2p. Bus. Coupe.....	1165	2	3030 Dghnr	
5p. Sedan.....	1215	2	3150 Dghnr	
5p. Sedan, 4d.....	1335	4	3250 Dghnrw	
"Advanced"				
121" W.B.				
4p. Roadster.....	1475	2	3390 Dghmar	
5p. Touring.....	1340	4	3400 Dghmar	
5p. Sedan.....	1425	2	3550 Dghmarw	
5p. Sedan.....	1545	4	3650 Dghmarw	
127" W.B.				
7p. Touring.....	1440	4	3480 Dghmnr	
5p. Sp. Touring.....	1540	4	3500 Bghmnr	
5p. Victoria.....	1595	2	3640 Dghnrw	
4p. Coupe.....	1775	2	3580 Dghmnr	
5p. Amb. Sedan.....	1925	4	3800 Dghnrw	
7p. Sedan.....	1990	4	3830 Dghnrw	
OAKLAND "6"				
5p. Touring.....	\$1025	4	2500 ah	
5p. Sp. Phaeton.....	1095	4	2620 aehw	
4p. Sp. Rdstr.....	1175	2	2590 aehw	
5p. 2d. Sedan.....	1095	2	2745 abu	
3p. Land. Coupe.....	1125	2	2705 abu	
5p. 4d. Sedan.....	1195	4	2855 abu	
5p. Land. Sedan.....	1295	4	2885 aehnou	
OLDSMOBILE				
"30-E"				
5p. Sp. Touring.....	\$895	4	2490 ceghlmnrt	
4p. DeL. Rdstr.....	895	2	2317 ceghlmnrt	
2p. Coupe.....	875	2		
5p. Sedan 2d.....	875	2	e	
5p. Sedan 4d.....	975	4	e	
4p. Sp. Coupe.....	965	2	2650 ceghlmnrt	
5p. Landau.....	1075	4	2780 ceghlmnrt	

KEY TO SYMBOLS

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|-------------------------------|--------------------------------|--------------------------|---------------------------|--------------------------|
| A—Wood wheels with spare. | D—Disk wheels with spare. | i—Trunk and trunk rack. | o—Car heater. | v—Vanity set. |
| a—Wood wheels. | d—Disk wheels. | j—Trunk rack, no trunk. | p—Cigar lighter. | w—Windshield wings. |
| B—Wire wheels with spare. | e—Front and rear bumpers. | k—Spare tire. | r—Rear traffic signal. | x—Clock. |
| b—Wire wheels. | f—Front bumper. | l—Spare tire lock. | s—Spotlight. | y—Overall length. |
| C—Optional wheels with spare. | g—Shock absorbers or snubbers. | m—Engine heat indicator. | t—Vanity and smoking set. | z—Prices on application. |
| c—Type of wheels optional. | h—Automatic windshield wiper. | n—Dash gasoline gauge. | u—Smoking set. | |

Prices, Weights and Equipment of Current Passenger Car Models

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passenger and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
OVERLAND					ROAMER					ROLLS ROYCE					STUTZ "AA"				
4p. Whippet	\$625	4	1985	ag	7p. Limousine	2695	4	3750	aghlmnrvtx	2p. Coupe	1195			deghmnr	2p. Coupe	1195			deghmnr
5p. Touring	695	2	1930	ag	5p. Del. Sedan	2755	4	3600	aeghlmnrvtx	4p. Coupe	1295			deghmnr	4p. Coupe	1295			deghmnr
2-4p. Roadster	625	2	2025	ag	7p. Del. Sedan	2995	4	3700	aeghlmnrvtx	5p. Sedan	1195	1	3235	deghmnr	5p. Sedan	1195	1	3235	deghmnr
2p. Coupe	625	2	2075	ag	"6-80"					"8-80"					"Commander"				
5p. Coach	725	4	2185	agh	5p. Phaeton	1395	4	2850	aeghlmnrw	2p. Coupe	1595			deghmnr	4p. Roadster	1595			deghmnr
5p. Sedan	725	4	2185	agh	2-4p. Roadster	1495	2	3025	aeghlmnrw	2p. Coupe	1495	2	3395	deghmnr	2p. Coupe	1495	2	3395	deghmnr
5p. Landau	755	4	2230	agh	2-4p. Coupe	1565	2	2975	aeghlmnrw	4p. Victoria	1495	2	3510	deghmnr	4p. Victoria	1495	2	3510	deghmnr
"6" Whippet					5p. 2d. Sedan	1395	2	3000	aeghlmnr	5p. Brougham	1985	2	3440	deghmnr	5p. Sedan	1495	4	3570	deghmnr
2-4p. Roadster	825	2	2225	agh	5p. Std. Sedan	1595	4	3125	aeghlmnr	5p. Sedan	1985	4	3570	deghmnr	4p. Cpe. Regal	1625	2	3465	deghmnr
5p. Touring	765	4	2270	agh	Spt. Sedan	1795		43100		5p. Tourer	2495	4	3650	eg	4p. Vic. Regal	1625	2		deghmnr
2p. Coupe	795	2	2305	agh	5p. Del. Sedan	1795	4	3125	Deghlmnrw	5p. Sedan	2985	4	3880	eg	Sed. Regal	1625			deghmnr
5p. Coach	795	2	2405	agh	"6-90"					"8-88"					"President"				
5p. Sedan	875	4	2440	agh	5p. Phaeton	1695	4	2930	aeghlmnrw	7p. Sedan	3285	4	3980	eg	7p. Tourer	1795	4		deghmnr
5p. Landau	925	4	2490	aght	2-4p. Roadster	1695	2	2960	aeghlmnrw	ROLLS ROYCE					7p. Sedan	1985	4	4050	deghmnr
PACKARD					4p. Coupe	1725	2	3050	aeghlmnrw	"St. Ghost"					7p. Limousine	2250	4	4080	deghmnr
4p. Runabout	\$2275	2	3545	Deghlmnrpx	4p. Sedan	1895	2	3150	aeghlmnr	Open Models				Bfghjkmprtx	STUTZ "AA"				
5p. Phaeton	2275	4	3590	Deghlmnrpx	5p. Sedan	1895	2	3150	aeghlmnr	Closed Models				Bfghjkmprtx	131" W.B.				
5p. Sedan	2285	4	3925	Deghlmnrprtx	5p. Sedan	1895	2	3150	aeghlmnr	Open Models				Beghjkmptrtx	2-4p. Sp'dster	\$3150	2	4058	aeghlmnrprwx
"83"					5p. Landau	1995	4	3250	aeghlmnr	Closed Models				Beghjkmptrtx	4p. Speedster	3160	4	4175	aeghlmnrprwx
5p. Phaeton	2385				"8-69"					STAR "4"					2-1p. Coupe	3165	2	4182	aeghlmnrprx
4p. Runabout	2385				126" W.B.	2795	3	3810	egi	2p. Con. Rdstr.	\$550	2	1850	a	4p. Viet. Coupe	3175	2	4176	aeghlmnrprtx
4p. Touring	2485				5p. Coupe	2995	4	3875	Deghlmnrtx	5p. Touring	550	4	1920	a	5p. Brougham	3195	4	4334	aeghlmnrprtx
4p. Coupe	2685	2	3925	Deghlmnrprx	133 3/4" W.B.	2995	2	3650	Deghlmnrtx	2p. Sedan Lim.	650	2	1965	ah	5p. Sedan	3195	4	4340	aeghlmnrprtx
5p. Club Sedan	2685	4	4015	Deghlmnrpr	2-4p. Roadster	2995	2	3650	Deghlmnrtx	5p. Coach	675	2	2120	ah	5p. Land. Sedan	3345	4		aeghlmnrprtx
PIERCE ARROW					7p. Sedan	3095	3	3775	eg	5p. Sedan	765	4	2200	ah	145" W.B.				
7p. Sedan	2685	4	4070	Deghlmnrprtx	5p. Sedan	3495	4	3950	Deghlmnrtx	5p. Touring	725	4	2070	a	5p. Tour. Bro'm.	3685	4	4566	aeghlmnrprtx
7p. Sedan Lim.	2785	4	4130	Deghlmnrprtx	7p. Sedan	3595	4	4050	Deghlmnrtx	2-4p. Roadster	885	2	2140	aeghlmnrw	7p. Sedan	3685	4	4656	aeghlmnrprtx
"443"					5p. Ber. Lim.	3795	4	4100	Deghlmnrtx	4p. Cabriolet	915	2	2260	aghlmr	7p. Sedan Lim.	3785	4	4731	aeghlmnrprtx
4p. Runabout	3975				"80"					STEARN'S-KNIGHT					131" W.B.				
5p. Phaeton	3975				2p. Runabout	\$2495	2	3285	afghlrx	"F-6-85"					2p. Speedster	3250	2	4058	aeghlmnrprwx
5p. Touring	4050	4	4250	Deghklmnrprx	7p. Phaeton	2895	4	3440	afghlrx	4p. Roadster	\$3250	2	4252	aeghklmnrwx	4p. Speedster	3260	4	4175	aeghlmnrprwx
5p. Coupe	4950				4p. Phaeton	3095	4	3300	afghlrx	4p. Touring	3250	4	4322	aeghklmnrw	2p. Coupe	3265	2	4182	aeghlmnrprtx
5p. Club Sedan	4950	4	4550	Deghlmnrprtx	4p. Conv't Coupe	3350	2			4p. Cab. Rdstr.	3550	2		aeghklmnr	4p. Viet. Coupe	3275	2	4176	aeghlmnrprtx
7p. Sedan	5150	4	4660	Deghklmnrprtx	5p. Brougham	3450	2	3470	afghlrx	2p. Coupe	795	2	2145	ahmr	5p. Brougham	3320	4	4334	aeghlmnrprtx
7p. Sedan Lim.	5250	4	4700	Deghklmnrprtx	5p. Sport Land.	3025	4			5p. Coach	845	2	2265	ahmr	5p. Sedan	3320	4	4340	aeghlmnrprtx
PAIGE "6-45"					2p. Coupe	3100	2	3405	afghlpr	5p. Sedan	925	4	2340	ahmr	5p. Land. Sedan	3470	4		aeghlmnrprtx
5p. Touring	\$1095	4		aeghnr	2p. Std. Sedan	2895	4	3525	afghlpr	2-4p. Sp. Coupe	975	2	2295	aeghkmr	5p. Tour Bro'm.	3835	4	4566	aeghlmnrprtx
2p. Coupe	1095	2	2525	aghlmr	7p. Std. Sedan	3350	4	3620	afghlpr	VELIE					7p. Sedan	3835	4	4656	aeghlmnrprtx
4p. Cab. Rdstr.	1295	2	2615	aeghnr	2-4p. Coupe	3200	2	3450	afghlpr	"AA Custom"					7p. Sedan Lim.	3910	4	4731	aeghlmnrprtx
5p. Brougham	1095	2	2660	aghlmr	5p. Club Sedan	3300	4	3565	afghlpr	2p. Coupe	3915	2	4182	aeghlmnrprx	2p. Coupe	3915	2	4182	aeghlmnrprx
5p. Sedan	1195	4	2760	aghlmr	5p. Club Land.	3400	4	3570	afghlpr	4p. Viet. Coupe	3925	2	4176	aeghlmnrprx	5p. Sedan	3995	4	4340	aeghlmnrprx
"6-65"					7p. Enc. Dr. Lim.	3450	4	3680	afghlprtx	2-4p. Cab C'pe	3995	2	4090	aeghlmnrprx	WILLS				
4p. Roadster	1495	2	3055	aghlmnrwx	4p. Coupe	3250	2	3420	afghlprtx	"F-6-85"					KNIGHT				
5p. Brougham	1395	2	3215	aghlmnr	5p. Del. Sedan	3895	4	3500	afghlprtx	"G-85"					"66-A"				
5p. Land. Bro'm.	1395	2	3115	aghlmnr	7p. Del. Sedan	3995	4	3600	afghlprtx	4p. Roadster	3950	2	4448	aeghklmnrwx	2p. Roadster	\$1850	2	3645	aghlrnx
5p. Sedan	1495	4	3280	aghlmnrux	7p. Lim. Encl.	4045	4	3660	afghlprtx	4p. Touring	3950	4	4633	aeghklmnr	5p. Touring	1850	4	3684	aghlrnx
"6-75"					"36"					"G-885"					2-4p. Cab C'pe	1995	2	3700	aghlrnx
7p. Touring	1655	4	3420	aghlmnrx	2p. Runabout	5875	2	4560	afghlrx	4p. Cabriolet	4550	2	4717	aeghklmnrwx	4p. Foursome	2095	4	3975	aghlrnx
4p. Cab. Rdstr.	1995	2	3540	deghmnrx	4p. Touring	5875	4	4510	afghlrx	5p. Sedan	4650	4	4934	aeghklmnr	5p. Sedan	1995	4	3975	aghlrnx
5p. Sedan	1695	4	3550	aghlmnrux	7p. Touring	5875	4	4585	afghlrx	7p. Sedan	4750	4	5027	aeghklmnr	7p. Touring	2495			
5p. Coupe	1995	2	3550	deghmnrx	7p. Sedan	5875	4	4815	afghlrx	4p. Coupe	4550	2	4882	aeghklmnr	7p. Sedan	2850	4	4075	aghlrnx
7p. Sedan	1995	4	3765	aghlmnrx	7p. Lim. Encl.	5875	4	4870	afghlrx	5p. Cus. Sed. Lim.	3700	4	4637	aeghklmnr	7p. Limousine	2950	4	4075	aghlrnx
7p. Limousine	2145	4	3805	aghlmnrx	3p. Coupe	6375	2	4760	afghlrx	7p. Sedan	3750	4	4702	aeghklmnr	"70-A"				
"8-85"					4p. Cpe. Sedan	6375	2	4795	afghlrx	7p. Sedan Lim.	3950	4	4800	aeghklmnr	2-4p. Roadster	1350	2	2965	aghlrnx
7p. Touring	2295	4	3570	aeghlmnrprx	4p. Sedan	6375	4	4830	afghlrx	4p. Roadster	1165		3080	deghmnr	5p. Touring	1295	4	2900	aghlrnx
5p. Sedan	2355	4	3700	aeghlmnrprx	7p. Enc. Dr. Lan.	6000	4	4895	afghlrx	4p. Touring	1195	4	3105	deghmnr	2p. Coupe	1295	2	2815	aghlrnx
4p. Coupe	2655	2	3700	aeghlmnrprx	7p. Sedan Land.	6000	4	4840	afghlrx	5p. Du Phaeton	1245	3	3090	deghmnr	5p. Coach	1295	2	3010	aghlrnx
4p. Cabriolet	2655	23	6900	aeghlmnrprx	4p. Lim. Encl.	6375	4	4880	afghlrx	4p. Roadster	1245			deghmnr	2-4p. Cab Coupe	1495	2	2880	aghlrnx
7p. Sedan	2655	43	9100	aeghlmnrprx	2p. Coupe	6600	2	4745	afghlpr	STUDEBAKER					5p. Sedan	1495	4	3105	aghlrnx
7p. Limousine	2795	4	3950	aeghlmnrprx	4p. Sedan Land.	6600	4	4800	afghlpr	"The Dictator"					WILLS				
PONTIAC "6"					4p. Encl. Land.	6600	4	4880	afghlpr	5p. Tourer	\$1165	3	3080	deghmnr	KNIGHT				
2-4p. Roadster	\$775	2	2160	ah	7p. Fr. Limou.	7500	4	4740	afghlpr	4p. Roadster	1245			deghmnr	"66-A"				
2p. Coupe	775	2	2275	ah	REO "A"					"G-885"					2p. Roadster	\$1850	2	3645	aghlrnx
5p. 2d. Sedan	775	2	2375	ah	2p. Roadster	\$1685	2			4p. Cabriolet	4550	2	4717	aeghklmnrwx	5p. Touring	1850	4	3684	aghlrnx
4p. Sport Cab.	835	2	2345	a	5p. Brougham	1685	2			4p. Coupe	4550	2	4882	aeghklmnrwx	2-4p. Cab C'pe	1995	2	3700	aghlrnx
5p. Land. Sedan	895	4	2460	ah	2p. Sp. Coupe	1625	2			5p. Sedan	4650	4	4934	aeghklmnr	4p. Foursome	2095	4	3975	aghlrnx
5p. Del. Landau	975	4	2510	ah	4p. Victoria	1845	2			7p. Sedan	4750	4	5027	aeghklmnr	5p. Sedan	1995	4	3975	aghlrnx
REO "A"					5p. Sedan	1845	4	3525	aeghlrnt	7p. Limousine	4950	4	5102	aeghklmnr	135" W.B.				
2p. Roadster	\$1685	2			5p. Del. Sedan	1995	4			"G-885"					7p. Touring	2495			
5p. Brougham	1685	2			"Wolverine"					"G-885"					7p. Sedan	2850	4	4075	aghlrnx
2p. Sp. Coupe	1625	2			2p. Roadster	\$1685	2			4p. Roadster	3950	2	4448	aeghklmnrwx	7p. Limousine	2950	4	4075	aghlrnx
4p. Victoria	1845	2			5p. Brougham	1195	2	2960	ahlnr	4p. Touring	3950	4	4633	aeghklmnr	"70-A"				
5p. Sedan	1845	4	3525	aeghlrnt	PEERLESS					"G-885"					2-4p. Roadster	1350	2	2965	aghlrnx
5p. Del. Sedan	1995	4			"6-60"					"G-885"					5p. Touring	1295	4	2900	aghlrnx
"6-60"					"6-72"					"G-885"					2p. Coupe	1295	2	2815	aghlrnx
2-4p. Roadster	\$1295	2	2600		5p. Coupe	2295	2	3400	aeghlmnrtx	"G-885"					5p. Coach	129			

This list comprises current cars distributed on a national basis only. Data for previous models back to 1920 will be found in the Chilton Catalog and Directory

MAKE AND MODEL			ENGINE										ELECTRICAL SYSTEM		REAR AXLE		BRAKES		STEERING GEAR—Type and Make		Length		Chassis Lubrication—Type and Make												
Wheel Base (Inches)	Tire Size	Dash/Balloons	Make and Model	Number of Cyls.	N.A.C.H.P.	Piston Displacement	Valve Arrangement	Camshaft Drive	Patent Material	No. Main Bear.	Damp/Vib	Oiling System	Cooling System	Thermoset?	Radiator?	Carburetor	Air Cleaner?	Ignition System	Generator and Starter Make	Gear Set—Make	Universal—Type and Make	Type and Make	Gear Ratio	Fuel—Type and Location	Hand—Type and Location	Wheel Type	Steering Gear—Type and Make	Length	Chassis Lubrication—Type and Make						
6-66	29x5.25		Auburn.....	6-27x4 1/4	19.8	185	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	Wac.	m-U-P.	Col.	4.9	B-F.	E-T	M	Ross	5.68	Pr-Al.						
8-77	29x5.25		Auburn.....	8-27x4 1/4	24.2	226	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	Wac.	m-U-P.	Col.	4.7	B-F.	E-T	M	Ross	5.68	Pr-Al.						
8-88	31x6.00		Auburn.....	8-31x6 1/2	23.8	299	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	Wac.	m-U-P.	Col.	4.45	B-F.	E-T	M	Ross	5.68	Pr-Al.						
11-15	31x6.00		Buck.....	8-31x6 1/2	23.8	207	He.	1	He.	4	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	Wac.	m-U-P.	Col.	4.9	B-F.	E-T	M	Jac.	V-48	Pr-Al.						
120-128	33x6.00		Buck.....	8-31x6 1/2	29.4	274	He.	1	He.	4	PK	Pu.	Pu.	N	N	Mar.	X	D-R.	D-R.	D.Own.	m-Own.	Fl Ovn.	4.7	B-F.	E-T	M	Jac.	V-47	Pr-Al.						
314	33x6.75		Cadillac.....	8-31x6 1/2	31.2	314	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Ovn.	X	D-R.	D-R.	D.Own.	m-Spl.	Fl Ovn.	4.91	B-F.	E-T	M	Jac.	S-60	Pr-Al.						
Big 6	33x6.00		Chandler.....	6-31x4 1/4	24.2	289	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Ovn.	X	D-R.	D-R.	P.B&B.	f-Own.	Fl Ovn.	4.45	B-F.	E-T	M	Jac.	S-59	Bowen						
Std. 6	30x5.00		Chandler.....	6-31x4 1/4	22.6	180	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Ovn.	X	D-R.	D-R.	P.B&B.	f-Own.	Fl Ovn.	4.45	B-F.	E-T	M	Jac.	S-51	Bowen						
Spec. 6	31x5.25		Chandler.....	6-31x4 1/4	22.6	219	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Ovn.	X	D-R.	D-R.	P.B&B.	f-Own.	Fl Ovn.	4.90	B-F.	E-T	M	CAS	S-54	Bowen						
Royal St. A	32x6.00		Chandler.....	8-31x4 1/4	33.8	314	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Ovn.	X	D-R.	D-R.	P.B&B.	f-Own.	Fl Ovn.	4.45	B-F.	E-T	M	CAS	S-59	Bowen						
Chrysler.....	29x4.40		Chrysler.....	4-31x4 1/4	21.8	171	He.	1	He.	3	PK	Pu.	Pu.	N	N	Cur.	X	D-R.	D-R.	P.Own.	m-Own.	Fl Ovn.	3.82	B-F.	E-T	H	Own.	S-54	Pr-Al.						
"80"	30x6.75		Chrysler.....	6-31x6 1/2	29.4	288	Cl.	1	Cl.	7	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.G&H.	m-U-P.	Fl Ovn.	4.18	B-F.	E-T	H	Ross	S-58	Pr-Ze						
"50"	29x4.75		Chrysler.....	4-31x4 1/4	21.0	170	He.	1	He.	4	PK	Th.	Th.	N	N	Bal.	X	D-R.	D-R.	P.Roc.	m-U-P.	Fl Ovn.	4.70	B-F.	E-T	N	Gem.	S-53	Pr-Ze						
"62"	28x5.25		Chrysler.....	6-31x4 1/4	23.4	180	Cl.	1	Cl.	7	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.B&B.	m-U-P.	Fl Ovn.	4.6	B-F.	E-T	H	Gem.	S-51	Pr-Ze						
"70"	30x6.00		Chrysler.....	6-31x4 1/4	23.4	218	Cl.	1	Cl.	7	PK	Pu.	Pu.	N	N	Bal.	X	D-R.	D-R.	P.G&H.	m-U-P.	Fl Ovn.	4.30	B-F.	E-T	H	Gem.	S-51	Pr-Ze						
Cunningham.....	33x6.75		Cunningham.....	7-31x6 1/2	45.0	442	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	D.Own.	f-Spl.	Fl Tim.	4.23	B-F.	E-T	H	Ross	J-52	Pr-Al.						
Devlin.....	31x5.00		Devlin.....	11-31x5 1/2	25.3	230	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.B&B.	m-Pec.	Col.	4.90	B-F.	E-T	H	Ross	S-51	Pr-Al.						
Devin.....	30x5.00		Devin.....	8-28x5 1/4	25.3	230	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.B&B.	m-Pec.	Col.	4.9	B-F.	E-T	H	Ross	S-51	Pr-Al.						
Doyle.....	30x5.00		Doyle.....	8-28x5 1/4	25.3	230	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.B&B.	m-Pec.	Col.	4.9	B-F.	E-T	H	Ross	S-51	Pr-Al.						
St. 8	32x6.00		Dodge Brothers.....	4-37x4 1/4	24.0	212	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.Own.	m-Mec.	Col.	5.10	B-F.	E-T	H	Gem.	S-54	Pr-Al.						
108	31x5.25		Dodge Brothers.....	4-37x4 1/4	24.0	212	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.Own.	m-Mec.	Col.	5.10	B-F.	E-T	H	Gem.	S-54	Pr-Al.						
116	32x6.00		Dodge Brothers.....	4-37x4 1/4	25.3	224	Cl.	1	Cl.	6	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.Own.	m-Own.	Fl Ovn.	4.10	B-F.	E-T	H	Gem.	S-55	Pr-Ze						
125	32x6.20		Dodge Brothers.....	6-31x6 1/2	27.3	268	Cl.	1	Cl.	3	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.Own.	m-Spl.	Fl Ovn.	4.7	B-F.	E-T	H	Ross	S-60	Pr-Al.						
6-70	28x5.25		Edsel.....	6-27x4 1/4	19.8	185	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Swan.	N	D-R.	D-R.	P.Long.	m-Cle.	Sal.	4.9	B-F.	E-T	H	Ross	S-51	Pr-Al.						
8-82	30x6.00		Edsel.....	6-27x4 1/4	25.4	247	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Swan.	N	D-R.	D-R.	P.Long.	m-Cle.	Sal.	4.9	B-F.	E-T	H	Ross	S-51	Pr-Al.						
8-90	32x6.20		Edsel.....	6-31x4 1/4	26.8	299	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Swan.	N	D-R.	D-R.	P.Long.	m-Cle.	Sal.	4.9	B-F.	E-T	H	Ross	S-51	Pr-Al.						
Super Six	32x6.40		Edsel.....	6-31x4 1/4	19.8	185	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Swan.	N	D-R.	D-R.	P.Long.	m-Cle.	Sal.	4.9	B-F.	E-T	H	Ross	S-51	Pr-Al.						
109 1/2	30x5.00		Edsel.....	6-27x4 1/4	17.3	153	Cl.	1	Cl.	3	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.Long.	m-Cle.	Sal.	4.9	B-F.	E-T	H	Ross	S-51	Pr-Al.						
110 1/2	30x5.00		Edsel.....	6-27x4 1/4	17.3	153	Cl.	1	Cl.	3	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.Long.	m-Cle.	Sal.	4.9	B-F.	E-T	H	Ross	S-51	Pr-Al.						
115	30x5.77		Edsel.....	6-27x4 1/4	18.1	169	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.Long.	m-Cle.	Sal.	4.9	B-F.	E-T	H	Ross	S-51	Pr-Al.						
80	32x6.20		Edsel.....	6-31x6 1/2	27.3	268	Cl.	1	Cl.	7	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.Own.	m-Spl.	Fl Ovn.	4.09	B-F.	E-T	H	Ross	S-55	Pr-Ze						
117	29x4.40		Edsel.....	6-31x6 1/2	22.5	177	Cl.	1	Cl.	7	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.Own.	m-Spl.	Fl Ovn.	4.09	B-F.	E-T	H	Ross	S-55	Pr-Ze						
119	32x6.00		Edsel.....	6-31x6 1/2	25.3	199	Cl.	1	Cl.	7	PK	Pu.	Pu.	N	N	Str.	X	D-R.	D-R.	P.Own.	m-Spl.	Fl Ovn.	4.73	B-F.	E-T	H	Ross	S-55	Pr-Ze						
80	30x6.00		Gardner.....	6-27x4 1/4	24.2	226	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
90	31x6.00		Gardner.....	6-31x6 1/2	33.8	298	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
Super 6	31x6.00		Gardner.....	6-31x6 1/2	29.4	244	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
A-1	30x5.25		Gardner.....	6-31x6 1/2	29.4	196	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
E-3	32x6.00		Gardner.....	6-31x6 1/2	28.8	268	Cl.	1	Cl.	4	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
R	28x5.25		Gardner.....	6-31x6 1/2	25.3	199	Cl.	1	Cl.	7	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
107	32x6.00		Gardner.....	6-31x6 1/2	25.3	268	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
125 1/2	32x6.20		Gardner.....	6-31x6 1/2	26.4	247	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
J-1	32x6.00		Gardner.....	6-31x6 1/2	26.4	247	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
6-55	32x6.00		Gardner.....	6-31x6 1/2	26.3	265	Cl.	1	Cl.	3	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
8-65	32x6.00		Gardner.....	6-31x6 1/2	26.3	246	Cl.	1	Cl.	3	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
8-75	33x6.00		Gardner.....	6-31x6 1/2	32.6	287	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
8	33x6.75		Gardner.....	6-31x6 1/2	36.4	358	Cl.	1	Cl.	5	PK	Pu.	Pu.	N	N	Sch.	N	D-R.	D-R.	P.B&B.	m-Cle.	Col.	4.89	B-F.	E-T	M	Ross	S-54	Pr-Al.						
KEY TO SYMBOLS																																			
Al—Aluminum																																			
A-Z—Aluminum-Zerk																																			
B—Semi-steel																																			
B-F—Both internal and external rear wheels																																			
BO—Bevel Gear Overhead shaft																																			
Chain																																			
CO—Chain drive																																			
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for Economical Transportation



The Most

Amazing Quality

in Chevrolet History

Offering the most amazing quality in Chevrolet history, today's Chevrolet is the most popular gear-shift car the world has ever known.

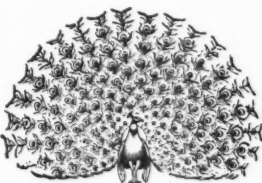
Quality in design! Quality in construction! Quality in appearance and performance! Never before has a low-priced car possessed them to such an amazing degree—

—because no other low-priced automobile combines the progressiveness of Chevrolet and the diversified experience, the vast resources and matchless facilities of General Motors!

With eight beautiful and distinctive body types to offer, each one an outstanding example of the designer's art, Chevrolet dealers are equipped to meet every driving preference—to enjoy the full sales benefits of this spectacular quality and value.

As a result, Chevrolet sales in every section of the country are breaking all previous records for a gear-shift automobile—definitely establishing the Chevrolet dealer franchise as one of the soundest and most valuable in the history of automotive merchandising.

CHEVROLET MOTOR CO., DETROIT, MICH.
Division of General Motors Corporation



The COACH
\$595

The Touring or Roadster . . . \$525

The Coupe . . . 625

The 4-Door Sedan . . . 695

The Sport Cabriolet . . . 715

The Landau . . . 745

The Imperial Landau . . . 780

1/2-Ton Truck (Chassis Only) 395

1-Ton Truck (Chassis Only) 495

All prices f. o. b. Flint, Mich.

**Check Chevrolet
Delivered Prices**

They include the lowest handling and financing charges available.

Q U A L I T Y A T L O W C O S T

Mechanical Specifications of Current Passenger Car Models—Continued

[illegible]

High compression cars are here at last!

THE ADVENT of Ethyl Gasoline has in the last year brought a new standard of automobile performance to hundreds of thousands of car owners. As an Ethyl user, you have had the benefits of greatly increased speed, more power on hills and heavy roads, quicker acceleration, and complete elimination of "knock."

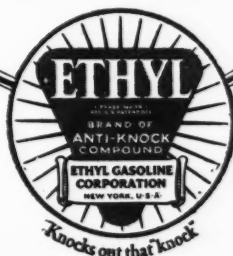
But the real high compression automobile is here at last!

Ethyl Gasoline has made it possible!

Ride with Ethyl in a high compression motor and get the thrill of a lifetime. Ethyl Gasoline is available throughout the United States and Canada at pumps which display the "ETHYL" trademark.

ETHYL GASOLINE CORPORATION • 25 Broadway, New York City

ETHYL GASOLINE





GENERAL



The car in the kitchen

AMONG the developments that have contributed most to the comfort of family life is the electric refrigerator.

GENERAL MOTORS early recognized that the market for electric refrigerators was as great as that for automobiles. In the same great Research Laboratories which have helped perfect its cars, Frigidaire was perfected. The same economical manufacturing processes which have helped make car-ownership almost universal were applied to the production of Frigidaire.

HENCE Frigidaire has become the largest selling electric refrigerator. And just as there is a General Motors car for every purse and purpose, so there is a suitable Frigidaire model for every family. It may be purchased, if you prefer, on the low-cost GMAC Plan.

"A car for every purse and purpose."

CHEVROLET * PONTIAC * OLDSMOBILE * OAKLAND
BUICK * LANSALLE * CADILLAC

GENERAL MOTORS TRUCKS * YELLOW CABS & COACHES

FRIGIDAIRE—The Electric Refrigerator

MOTORS

Now **7** times more certain of success!

WHEN it was first announced, Mohawk One-Dial Radio for 1927-28 had 6 great features that assured Mohawk dealers 6 times more certainty of success. Now a seventh feature is added—an amazing speaker of tone which the most prejudiced will grant is unrivalled. Through a newly-discovered, exclusive construction, the Mohawk Pyramonic Speaker achieves a depth and clarity of expression that seems beyond improvement—to excel it will require necromantic

powers not possessed by man. Now check these Mohawk features: 1—The first and the foremost One-Dial Set, shielded, 6 tubes. 2—The exclusive Mohawk Interchangeable Drawer, an insurmountable barrier to competition. 3—Consoles that must be seen for adequate appreciation. 4—A.C. electrically operated sets. 5—The Mohawk Dealer Franchise—unprecedented in its broad terms. 6—The astounding Mohawk Pyramonic Speaker. 7—Absolutely unparalleled prices!

Is there anything left for you to do other than to write immediately?



IROQUOIS CONSOLE—Rich walnut, hand-rubbed, piano-finish, duo-tone, with apron maple spindle-carved, four turned legs, battery compartment with front removable panel, with built-in patented pyramid loudspeaker with tastily designed Burgundy red silk-backed grill, with set compartment accommodating Mohawk interchangeable battery or electric Drawer Unit. Dimensions: 47¾ x 23½ x 15½ inches. **\$130** List

With A. C. Electrical Equipment, \$110 extra.

**MOHAWK
RADIO**
is now licensed under
**RADIO
CORPORATION
OF AMERICA**
Patents



**Full Protection
for
MOHAWK
Dealers**



**Other models at
\$67.50, \$92.50, \$165
and \$195**



SEMINOLE SPANISH VARGUEÑO CONSOLE—A superbly unusual Mohawk Creation. Complete in every detail of design, originality and construction. Dimensions: 45¾ x 36 x 20 inches. List **\$275**

With A. C. Electrical Equipment, \$110 extra.

Mohawk

**MOHAWK CORPORATION
OF ILLINOIS**

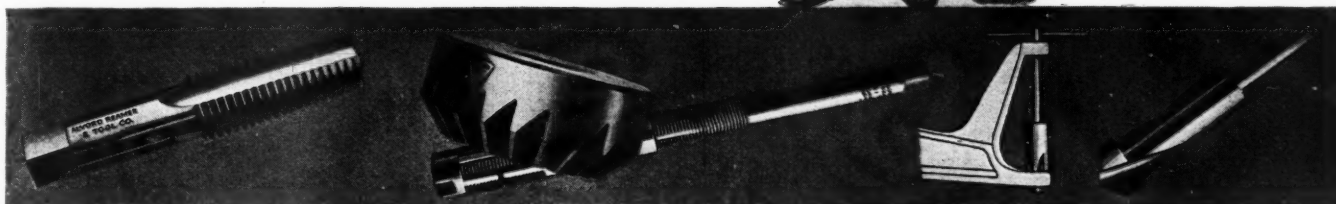
Established 1920
Independently Organized in 1924

2216 Diversey at Logan Blvd., Chicago

**Building Them Better
Pricing Them Lower
Selling Them Faster**

One Dial Radio

To mechanics
whose time
is money



MECHANICS are divided into two classes—those who kid themselves and those who face facts. The cold, hard fact of the matter is that *everybody* in this world is *judged by results*. The “clock watcher” and the “time sheet padders” only *think* they “get away with it.” Their pay envelopes tell the story!

No matter whether you are paid by the hour, or by the flat rate system, or by the week—your earning power is exactly proportioned to the amount of work you do. The man who does most work can command most money. He does not have to hunt work. Employers hunt him.

And that's that!

Many a first class mechanic loses several hours a week *waiting for his turn at tools*. You probably know such a man, and you know that his

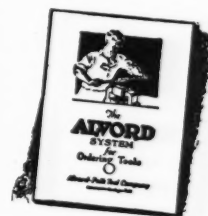
production record doesn't tell the whole truth about his ability.

It would pay that man to own his own tools—a full kit. He could let the other fellow worry about “buying tools for another man's business.” He would **KNOW** that the tools were *paying him*, because they save *his time—and his time is money*.

Of course, a good mechanic wants nothing but *good* tools. Alvord-Polk tools fill the bill to perfection.

Free!

You ought to have the Alvord-Polk Catalog. Write for it. It's free. When you get it, decide which tools you *wait for* most frequently. Then buy a tool or two each week from the nearest Alvord-Polk Jobber—and see how much more money you can make out of your time. Alvord-Polk Tool Company, Millersburg, Pa.



ALVORD - POLK

Tools for Repair Shops

P A I G E

The owners of Paige cars are best served through dealers who have the three fundamental "C's" , , , Character, Capability and Capital.

*Joseph B. Graham
Robert C. Graham
Ray A. Graham*

VELIE

The Name Insures The Quality

"The Quality of the car he sells should be every dealer's first consideration. This truth is more significant today than ever before, because now repeat sales must form a great per cent of every dealer's business. Do you sell the kind of car that keeps a man sold by its in-built Quality? The Velie is backed by 19 years of Quality Production, 19 years of experience resulting in Velie's specially engineered Air-plane Type Motor with a wide margin of over-strength in every part."



Oilless—Noiseless Rubber Shackles
Standard on All Models

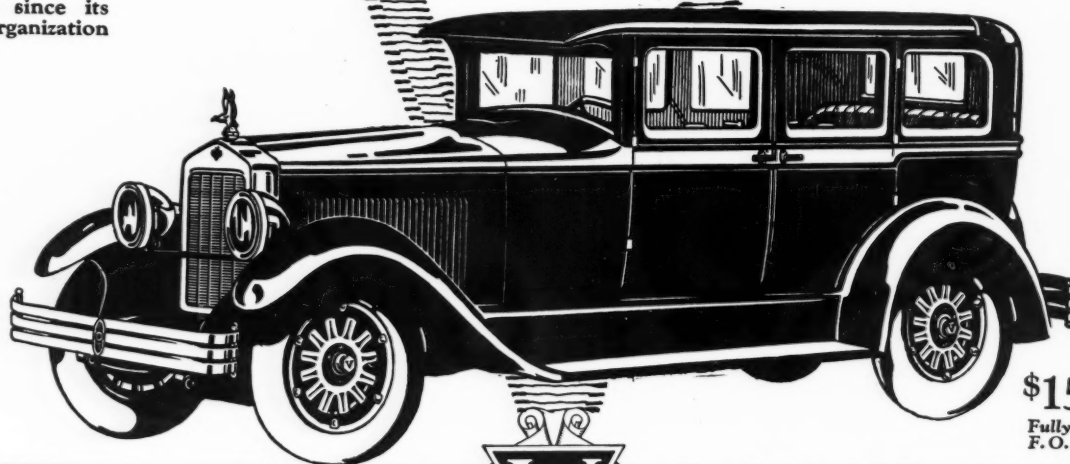
VELIE MOTORS CORPORATION
MOLINE, ILLINOIS

111

DEALERS and DISTRIBUTORS
Never before has the Velie Franchise been so valuable. Sales are increasing from 47% to 61% compared with 1926. If your territory happens to be open, investigate.

Velie offers a full line of cars on two chassis, price range \$1165 to \$1635.

The Velie Motors Corporation is a personally conducted business, maintaining close relationships with dealers and distributors at all times. Mr. Velie, president and founder of the Corporation, has been executive head of the company since its original organization



Special
Six
Sedan

\$1585

Fully Equipped
F. O. B. Moline

LONG VELIE LIFE

27

Your neighboring
carpenter uses
Johns-Manville
Asbestos for fire-
safe construction.



Your local roofing man
lays Johns-Manville As-
bestos Shingles.

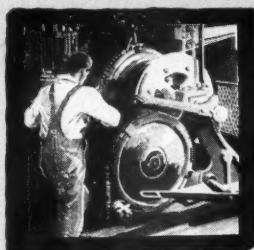
for brake lining come to Asbestos Headquarters



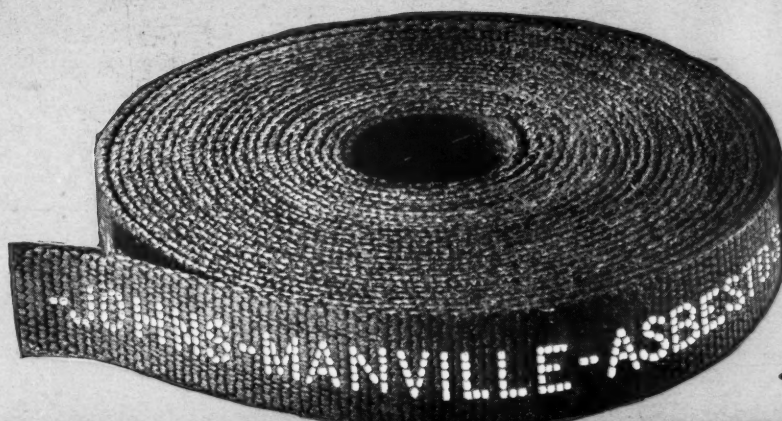
Steamfitters and
plumbers depend
on Johns-Manville
Asbestos for effi-
cient pipe covering.

*which everybody
knows is —*

JOHNS-MANVILLE



The engineer relies on
Johns-Manville Asbestos
for all sorts of packing.
For Brake Blocks too.



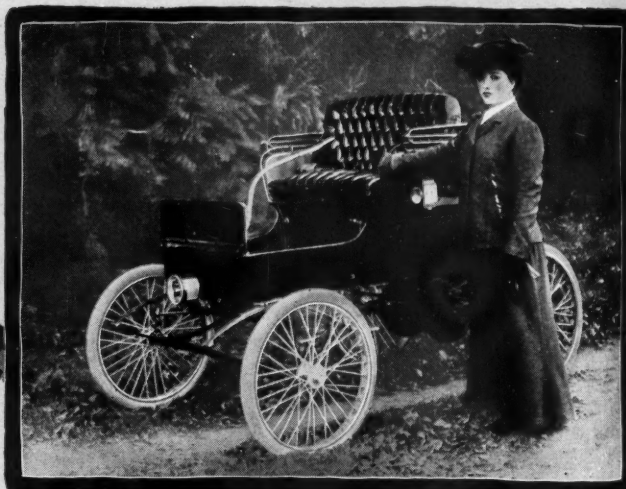


Blasted from rock. The asbestos that goes in Johns-Manville lining is blasted from Johns-Manville mines.



Everywhere police are finding faulty brakes. If you find them first it means profit for you.

Inspect their brakes. An inspection by you brings you profit. And it may save your customer a fine.



In the gay '90's. Even when the automobile looked like this we were known as asbestos specialists. We had long been lining the brakes of huge industrial machinery.



To keep your shop busy. Bright posters, attractive window displays, mailing pieces and many other helps are provided by Johns-Manville. By bringing people to your shop these sales helps will turn prospects into customers.



Brake specialists. A display of Johns-Manville lining and a relining machine is the surest way to tell the customer that you are a real brake specialist.



Johns-Manville

BRAKE SERVICE

L.H. VANBLARCOM INC.

Your name goes on this sign.
Get it up! It brings business to you.

JOHNS-MANVILLE CORPORATION, 292 MADISON AVE.,
NEW YORK. BRANCHES IN ALL LARGE CITIES
CANADIAN JOHNS-MANVILLE CO., LTD., TORONTO

Make your FREE AIR SIGN a salesman



THERE is a difference in "free air service!" Have you ever driven up to a station, removed your valve caps and then found out that there wasn't enough air for a bicycle tire?

The unreliable kind of "free air service" sends customers away; the dependable makes sales and promotes good will. Brunner introduced the air compressor for tire inflation to the automobile industry over 20 years ago. Since then over 85,000 Brunners have been inflating the world's tires and helping to make sales for their owners.

A Brunner will maintain pressure in your air lines at all times and will do it economically for many, many years for you, just as it has for thousands of other owners. A complete description of all models of Brunner profit earning equipment is in our catalog. Use coupon below.

BRUNNER MANUFACTURING CO. Utica, N. Y.

SAN FRANCISCO

TORONTO, ONT.

KANSAS CITY, MO.

MODEL No. 932

This model is inflating more tires than any other compressor in the world today.



BRUNNER MFG. COMPANY, Utica, N. Y.

Dept. M.A.

Gentlemen:

Please send me the catalog on **BRUNNER AIR COMPRESSORS**.

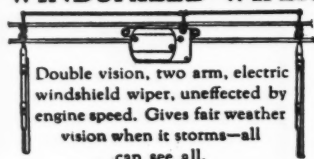
Name.....

Address.....



OTHER BOSCH AUTOMOTIVE NECESSITIES

BOSCH ELECTRIC WINDSHIELD WIPER



Double vision, two arm, electric windshield wiper, unaffected by engine speed. Gives fair weather vision when it storms—all can see all.

BOSCH TRAFFIC-TUNED HORNS, Electric

Four sizes and types of instantaneous warning signals with distinctive tones and efficient warning.



BOSCH SPARK PLUGS



Gas-tight, heat resisting Bosch Spark Plugs give big, ribbon-like sparks for cold weather starting.

BOSCH IGNITION FOR FORDS

Automatic, dependable Bosch ignition adds new performance to Fords, improves power and gives greater mileage.



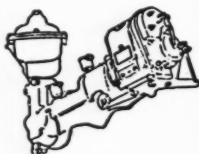
BOSCH UNIVERSAL IGNITION COIL



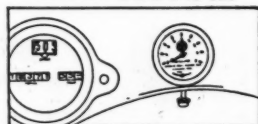
Replaces ignition coils on all makes of cars and trucks. Gives Bosch standard of dependable performance.

BOSCH MAGNETO AND GOVERNOR FOR FORDSONS

Automatic control for Fordsons. Saves in operation and improves the performance. Saves its cost in a season.

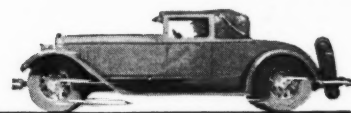


BOSCH AUTOMATIC GAS SIGNAL



Entirely electrical in operation. Accurately records gasoline in tank and automatically flashes warning before tank is empty.

freedom



Make this a summer of riding freedom in your locality—freedom from jars and jolts. Feature Bosch Shock Absorbers—install them on new cars and old cars.

Bosch Shock Absorbers will give you a season of freedom from heavy stocks and slow sellers—only two types of Bosch required for all cars.

Bosch Shock Absorbers control the spring action of a car, completely, continuously. They make every motoring mile an enjoyment and save their cost many times in preventing wear and tear. Bosch Shock Absorbers eliminate that galloping motion—they are adjustable to all tires. Push dependable Bosch Shock Absorbers. Order now from your accessory supplier.

For Fords (3-point Control Set) Complete \$16.50 per set. 2-point Set, \$12.50—Front \$6, Rear \$10. Medium Cars \$15 per pair. Heavy Cars \$20 per pair.

AMERICAN BOSCH MAGNETO CORP.
Main Office and Works: Springfield, Mass.
Branches: New York Chicago Detroit San Francisco

May 1927



BOSCH Shock Absorber

BOSCH
RADIO

receivers are noted for their tonal quality, beauty of appearance and simplicity of operation. Wide range of selection is had in 5, 6 or 7-tube receivers, two-cone type reproducers and a range of power units.

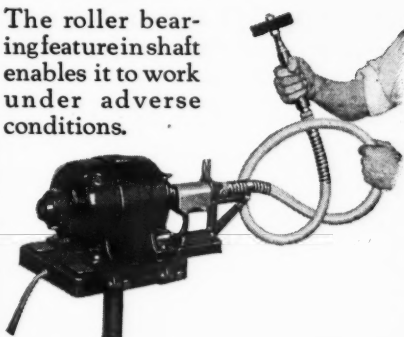
FLEXIBLE SHAFT AND ATTACHMENTS

Patented
Jan. 15, 1924



"X-ray" view of Shaft showing Roller Bearings

The roller bearing feature in shaft enables it to work under adverse conditions.



No. 875
Portable Type
Complete with 1-2 h.p.
motor. Net Price
\$118.00

SIoux

Trade Mark Reg. U.S. Patent Office

Your Jobber
Sells It

Time Saved Means Extra Profit

WITH standard flat rate charges—you can make many dollars extra profit by saving time on each job with this modern speed tool. Handy, light, compact, efficient—it does many jobs much easier, quicker and better—drilling, grinding, valve-lapping, polishing, paint-removing, etc. It's a "back-saver," too—makes it easy to reach difficult places.

Roller bearings on shaft eliminate friction, insure long life and make it work efficiently in any position—an exclusive Sioux feature. Direct drive—tools operate at same speed as motor, 1725 R.P.M.
ALBERTSON & CO., Sioux City, Iowa, U.S.A.

There is some open PEERLESS territory —

THE new low-priced Six-60 has created a demand for Peerless cars never before approached in the long history of the company.

Each month sees production records smashed—Peerless distributors and dealers growing more prosperous—scores of good, live-selling organizations seeking the Peerless franchise.

Peerless prices now range as low as \$1295. So, today, the Peerless contract is a large profit-maker in many towns

that cannot support a dealer in cars much higher in price.

Peerless offers a car for every purse—a model to meet every requirement of beauty, comfort, power, dependability. And each is every inch a Peerless.

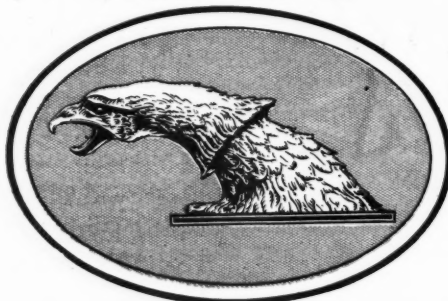
If you can sell cars you can sell Peerless cars. Any ambitious dealer in any wide-awake American town can build a substantial, profitable business on this one line.

Write, wire or phone for details of the Peerless franchise.

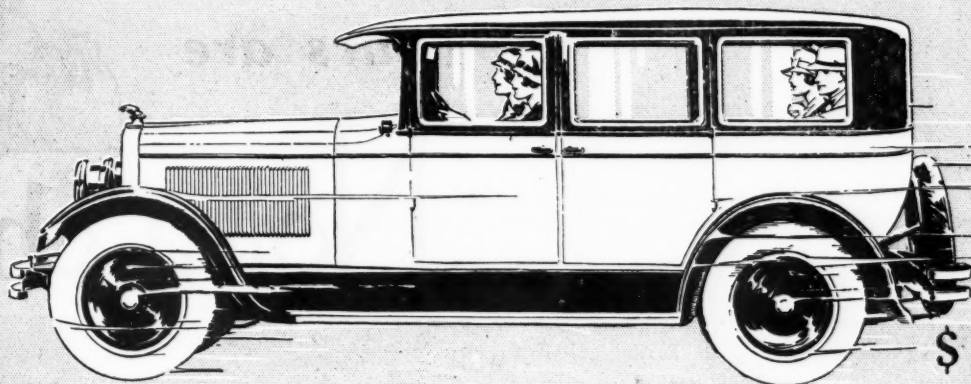
PEERLESS MOTOR CAR CORPORATION · Cleveland, Ohio

*Manufacturers of the famous 90° V-type Eight-69,
the Six-80, the Six-90 and the Six-60.*

(All prices f. o. b. factory)

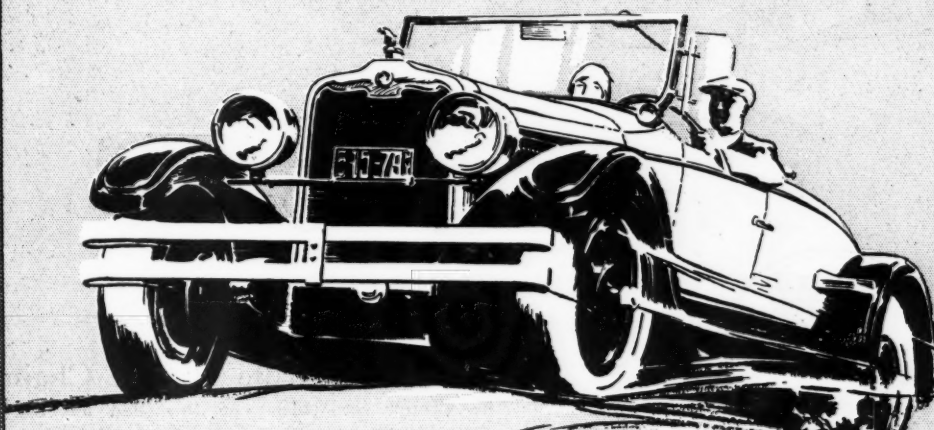


PEERLESS



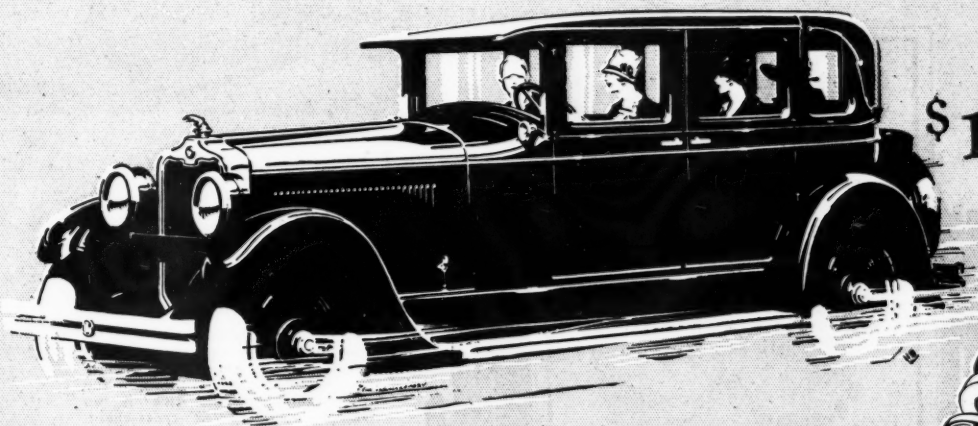
The New
Six-60
Sedan

\$1345



The New
Six-60
Roadster

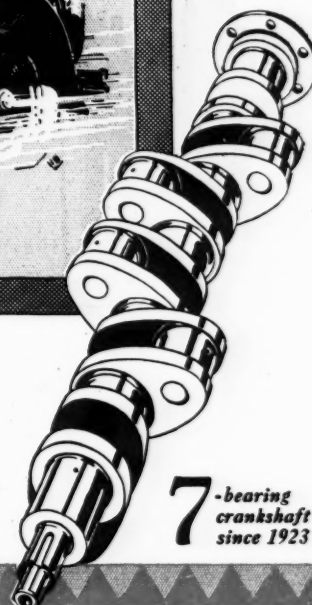
\$1295



The
Six-90
Close-
Coupled
Sedan

\$1895

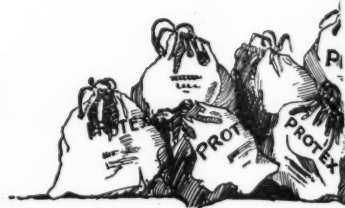
Peerless Has ALWAYS
Been a Good Car



7-bearing
crankshaft
since 1923

Yours are

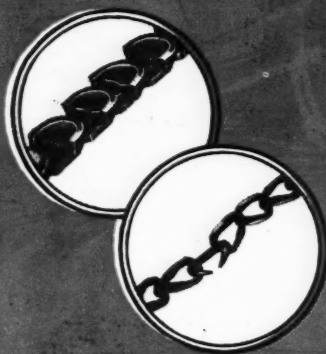
Not a chain



Business side of chain, toward the road.



Smooth inside always next to tread.



Outwore Two Ordinary Tire Chains!

"The Protex set which you furnished me last winter outwore two other well-known tire chains, namely, the ——— and the ——— chains. These chains were all used on my own car, which enabled me to give each a fair trial."

From a prominent Detroit distributor.

PROTEX TIRE CHAINS



THE PROTEX TIRE AND CHAIN SIZE CHART

Outwears Two Ordinary Tire Chains Gives Dry Road Safety —No Side Skid

TIRE SIZES		CHAIN SIZES	
16"	3.00	16"	3.00
16"	3.50	16"	3.50
16"	4.00	16"	4.00
16"	4.50	16"	4.50
16"	5.00	16"	5.00
16"	5.50	16"	5.50
16"	6.00	16"	6.00
16"	6.50	16"	6.50
16"	7.00	16"	7.00
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16"	18.00	16"	18.00
16"	18.50	16"	18.50
16"	19.00	16"	19.00
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16"	20.00	16"	20.00
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16"	21.00	16"	21.00
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16"	22.00	16"	22.00
16"	22.50	16"	22.50
16"	23.00	16"	23.00
16"	23.50	16"	23.50
16"	24.00	16"	24.00
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16"	28.50	16"	28.50
16"	29.00	16"	29.00
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16"	30.00	16"	30.00
16"	30.50	16"	30.50
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16"	32.00	16"	32.00
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16"	97.00	16"	97.00
16"	97.50	16"	97.50
16"	98.00	16"	98.00
16"	98.50	16"	98.50
16"	99.00	16"	99.00
16"	99.50	16"	99.50
16"	100.00	16"	100.00

Free! Protex tire and tire-chain size chart

Hundreds are asking for this chart. Nothing else like it ever published before. A tire and tire-chain size chart.

A tire-chain size conversion tablet that may reduce your stock investment. And a display wall hanger on Protex Chain. In place on the photograph of the tire is an actual metal Protex cross-chain.



Ready Now

n on the market can touch it

- 1— *for correct anti-skid design*
- 2— *for sheer wearing strength*
- 3— *for net selling profit*

HERE, for the first time, is an anti-skid tire chain that actually does what every motorist expects a chain to do—prevent skidding in any direction. Every link of Protex is built the shape of a horseshoe—and a full inch wide. *Traction!* Even on glassy, ice-coated pavements they can't slip. Sideskid and wheel-spin absolutely overcome. A truly remarkable advance in tire-chain construction!

Protex Chains are built of the finest alloy steel that is commercially practical for a tire-chain. Almost wearproof! Use them steadily in city running. They laugh at bare concrete and cobblestones. Read how they outwore 2 well-known tire chains.

Now step out of competition!

Go to your jobber—or write direct to

Protex Chain Company, Inc.

Waynesboro, Pa.

District Sales Representatives:

Accessory Sales Co., 1834 Broadway, New York City.
 L. L. Schnetzler, 704 Abbot Bldg., Philadelphia, Pa.
 Walter Eckhouse & Co., 616 S. Michigan Ave., Chicago, Ill.
 G. A. Ashton Co., 1547 University Ave., St. Paul, Minnesota.
 W. C. Rice Co., 623 Larkin St., San Francisco, Cal.



Write for your share of the attractive folders. Slip one in with each monthly bill you send out. Put them to work on your counter. Watch them get results!

PROTEX TIRE CHAINS



The Trend is toward Hydraulics !

The ability of Delco-Remy Lovejoy Hydraulic Shock Absorbers to deliver *unvarying* performance without periodic adjustment has resulted in their being selected as standard equipment on two of America's finest cars. Other standard installations are soon to be announced.

Authorized Lovejoy Distributors are being appointed everywhere. Thru these distributors, or the direct branches of United Motors, any car dealer can obtain equipment in line with this new demand.

Available for All Models of All Cars

UNITED MOTORS SERVICE

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Official Service Organization for

DELCO-REMY, KLAXON, HYATT, NEW DEPARTURE, HARRISON,
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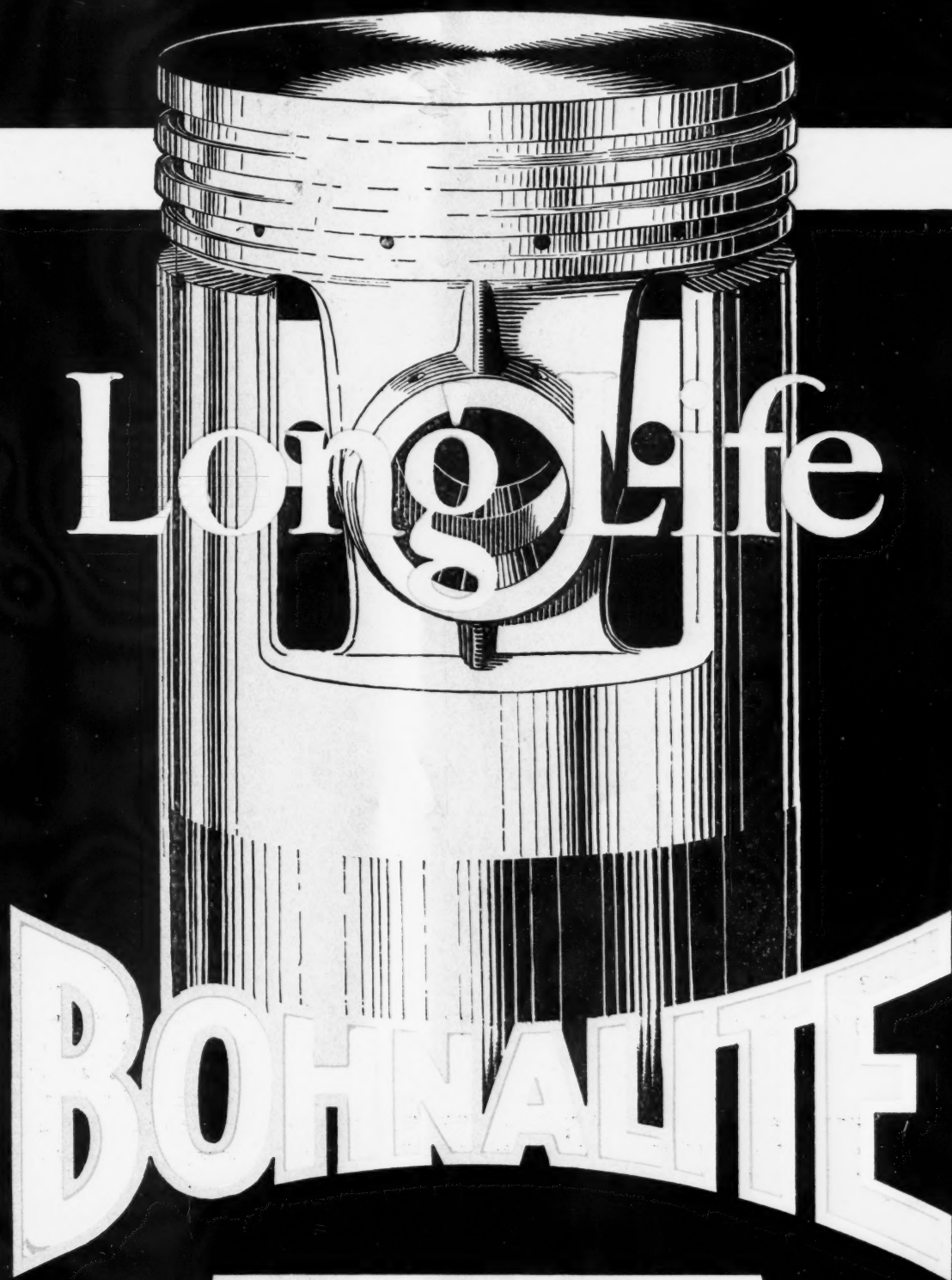
LOS ANGELES
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SEATTLE
TORONTO, CANADA

C

!

Add a Lasting Thrill to any Motor



Bohn Products include Ring True Bearings—Bohnalite Castings, semi-permanent, permanent mold and sand, Nelson Bohnalite pistons; we also supply the government with replacement pistons and bearings for the Liberty engine.

Long

**Bearing~
Surfaces**

Hardly More Than Polish Bright

Long life was never associated with light alloy pistons, until the Nelson ★ Bohnalite product created new records of piston endurance.

When, for one reason or another, it is necessary to overhaul engines in which Nelson ★ Bohnalite pistons are standard—it is found the backbone of steel so thoroughly controls the expansion of this piston, that the bearing surfaces hardly more than polish bright.

Nelson Bohnalite Pistons are already being used by manufacturers of cars, for which they claim unprecedented performance—a list of them will be gladly furnished upon request along with a booklet which further describes the design of this outstanding piston.

Life

**The Backbone of
Steel or Strut**

Special alloy steel struts are cast in, to control expansion and maintain satisfactory clearances under all engine operating conditions. The struts are the backbone of piston endurance and long life.

★ BOHNALITE, the alloy from which this piston is made, should never be confused with any other light alloy upon the market. Every Nelson Bohnalite Piston is heat-treated for uniformity strength and hardness.

BOHN ALUMINUM & BRASS CORPORATION
EAST GRAND BOULEVARD, DETROIT

THE LIGHT ALLOY PISTON WITH A STEEL BACKBONE







Now!

A National Standard of Insured Automotive Service

Is being rendered by the Pick of the Nation's
Garage Men identified by this emblem

A Partial List of UNITED BONDED GARAGES Charter Members

Accepted and Franchised as of July 10th. Additional Lists Will be Published as Inspections,
Investigations and Acceptances Are Completed.

The Attention of More Than 5,000,000 Motorists is Being Directed to These Service
Stations by National Advertising, Road Signs, Station Signs, Insurance Companies, etc.

Clark Motor Co.—Clark's Summit, Pa.
Thacker-Redinbo Motor Co.—Lafayette, Ind.
Bowles & Abel Garage—Otterbrien, Ind.
Boell & Nyquist—Cannon Falls, Minn.
Pennsylvania Ave. Garage—Elmira, N. Y.
Dow Garage—Binghamton, N. Y.
Ridgeway & Stephens—Hopbottom, Pa.
New Milford Motor Co.—New Milford, Pa.
Phillips Garage—Wabasha, Minn.
R. & H. Motor Sales—Manhattan, Ill.
Twelfth Street Garage—Columbus, Ga.
Central Garage—Cortland, N. Y.
Motor Inn Garage—Austin, Minn.
D. S. Milne—Fairmont, Minn.
Walker's Garage—Waycross, Ga.
Super Service Station—Birmingham, Ala.
Commercial Auto Service—Jacksonville, Fla.
Service Garage—Worthington, Minn.
Frank J. Schmidt Garage—Columbus, Wis.
Factory Motor Car Co.—Portland, Ore.
R. K. Poetter Service Garage—Fond du Lac, Wis.
Goree-Norris Tire Co.—Montgomery, Ala.
New Castle Garage—New Castle, Ind.
Fargo Garage—Sycamore, Ill.
Iowa Peerless Corp.—Davenport, Ia.
Lewellyn & Scott—Sterling, Ill.
Plow City Garage—Moline, Ill.
All In One Garage—Savannah, Ga.
Tourist Garage—Spring Valley, Ill.
Kinder Motor Sales—LaSalle, Ill.
Red Front Garage—Frankfort, Ind.
Ziehlke Bros.—Medford, Wis.
Barron Hudson-Essex Sales—Barron, Wis.
C. W. Schrader & Son—Columbia City, Ind.
M. & M. Garage—Rochester, Ind.
Northern Lakes Garage—Phillips, Wis.
Service Garage—Eagle River, Wis.
Walsh's Garage—Woodruff, Wis.
Nash Motor Sales, Inc.—Merrill, Wis.
J. M. Taylor Auto Co.—Andalusia, Ala.
Central Park Garage—Moline, Ill.
Imperial Garage—Portland, Ore.
Brown's Service Station—Joliet, Ill.
Kerlin Bros. Auto Co.—Franklin, Ind.
Garris Garage—Fortville, Ind.
Gulf Coast Garage—Mobile, Ala.
Pioneer Auto Co.—Mobile, Ala.
Ebbe's Garage—Wisconsin Rapids, Wis.
Gibney Motor Co.—Marion, Ia.
Roy Summers Garage—Stevens Point, Wis.

Forsythe Garage—Noblesville, Ind.
Jim's Garage—Plymouth, Ind.
Battery & Electric Shop—Black River Falls, Wis.
R. E. Grovesteen's Garage—Tomah, Wis.
Zionsville Motor Sales—Zionsville, Ind.
Hertel Repair Shop—Columbus, Ind.
Northrup's Garage—Springfield, S. C.
Reul's Garage—Baraboo, Wis.
Liessmann's Garage—Kilbourn, Wis.
Overland-Knight Sales Co.—Mauston, Wis.
Main Street Garage—Portland, Ore.
Turtle Auto Port—Pensacola, Fla.
Del-Mar Garage—Indianapolis, Ind.
Ping's Service Garage—Sauk City, Wis.
C. M. Eystone—Ogden, Ill.
Hub Garage—Pana, Ill.
Shorts Motor Sales—Seymour, Ind.
Spaugh's Garage—Hope, Ind.
Motor Inn—Boone, Ia.
Bridge Street Garage—Union, N. Y.
Highland Garage—Rockford, Ill.
Phillips Motor Sales Co.—Platteville, Wis.
Grand Motor Co.—Des Moines, Ia.
Service Garage—Warren, Ill.
Illini Garage—Ottawa, Ill.
Irrington Garage—Indianapolis, Ind.
Square Deal Auto Service—Birmingham, Ala.
Oak Service Station—Belle View, Fla.
Plaza Garage—Indianapolis, Ind.
H. H. Thousand & Son—Mt. Horeb, Wis.
Beattie Garage—Des Moines, Ia.
Motor Inn—Ames, Ia.
J. E. Engels Auto Company—Mineral Point, Wis.
Sullivan Trail Garage—Wysox, Pa.
East Side Garage—St. Charles, Ill.
Multnomah Hotel—Portland, Ore.
F. H. Swanson Garage—Geneva, Ill.
B. G. Herlt—Picture Rocks, Pa.
Madison Street Garage—Evansville, Wis.
Richardson's Garage—Fife Lake, Mich.
Richardson's Garage—Kalkaska, Mich.
James F. Patterson Garage—Aurora, Ill.
HiWay Garage—Monroeville, Ohio.
C. E. Beem & Son—Shelbyville, Ill.
C. H. Cranmer—New Albany, Pa.
Leo J. Sick—Dushore, Pa.
Stockton Buick Co.—Stockton, Ill.
Stoughton Auto Service—Stoughton, Wis.
Smith Auto Co.—Oregon, Wis.
Shilhanek Garage—Tama, Ia.

Leroy Garage—Leroy, Mich.
Buss Garage—Reed City, Mich.
Meridian Garage—Indianapolis, Ind.
Elizabeth Garage—Elizabeth, Ill.
Kraehmer's Garage—Galena, Ill.
Towanda Motor Co.—Towanda, Pa.
Chas. Hendricks—West Field, Ind.
C. & L. Auto Service—Indianapolis, Ind.
Service Garage—Monticello, Wis.
Monroe Auto Co.—Monroe, Wis.
Kingsley Garage—Kingsley, Pa.
Walter Bremer Garage—Faribault, Minn.
Behrens Garage—Cedar Falls, Ia.
Metal Specialties Co.—Freeport, Ill.
Piffner Brothers—Waterloo, Ia.
Diels Motor Co.—Richland Center, Wis.
Hines Motor Company—Independence, Ia.
Anderson & Rice—Portland, Ore.
Vandye & Nelander—Whitehall, Mich.
Triangle Garage—Beaver Dam, Wis.
J. R. Thompson Motor Sales—Muskegon, Mich.
Bur-Wis Motors Co.—Burlington, Wis.
Tryus Garage—New Brunswick, N. J.
Ouling Bros. Garage—Cascade, Ia.
Wm. Zebell Garage—Odell, Ill.
Jeffery Bros.—Madison, Wis.
Knight's Garage—Fort Atkinson, Wis.
Vietmeyer's Garage—Forreston, Ill.
John Stuck & Son Garage—Polo, Ill.
Scottville Auto Service—Scottville, Mich.
Waters & Owen—Whitewater, Wis.
East Dubuque Garage—East Dubuque, Ill.
Wokosin & Nichols Auto Co.—Waterloo, Ia.
West Side Auto Service—Waterloo, Ia.
Golden Rule Auto & Elec. Service—Beloit, Wis.
Larson's Reliable Garage—Manton, Mich.
B. L. Paige Garage—Shelby, Mich.
Badger Garage—Elkhorn, Wis.
Palace Garage & Auto Laundry—Racine, Wis.
Lake Shore Garage—Kenosha, Wis.
Service Garage—St. Charles, Minn.
Automotive Clinic—Rochester, Minn.
Fourth Street Garage—Huntingdon, Pa.
Wright-Griffin Garage—Decatur, Ala.
Ingold Bros.—Flanagan, Ill.
Gill Automotive Service—Portland, Ore.
Columbia Highway & Parkrose Service Station & Garage—Portland, Ore.

Inquiries regarding franchises should be addressed to the Chicago office.

UNITED BONDED GARAGES, Inc.

PORTLAND, OREGON, Pacific Building

CHICAGO, ILLINOIS, Straus Building

Members Chicago Association of Commerce

They Sell Themselves

These 21 motorists—all employees of the Perfection Stove Company, Cleveland—have one after another equipped their cars with Hexdees.

These motorists in a single organization bought Hexdees

JOHN KEBERDLE
W. E. THOMPSON
NORMAN E. OLDS
CLYDE W. BLACKMUR
A. H. DREHER
EARLE F. NEAL
A. M. SHERROD
FRANK E. WENGER
W. G. SCHULTZ
J. M. KOUGH
A. W. WHITE
F. E. JUHASZ
LAWRENCE DOMANN
J. A. SCHROEDER
AUGUST WAHL
EMIL LESKOVEC
C. A. BLACKBURN
H. F. SCHEMPP
JOHN C. SCHROH
V. S. BYLER
PERRY T. BLAINE

Low Cost and Sure Performance
Sell Hexdees.

John Keberdle bought the first set. He told Eli Thompson about his wonderful Hexdees ride, about the low cost, too. Then Eli bought a set and told the story to the next man. Set after set was *bought*, not sold, until 21 motorists in the Perfection organization had their cars equipped.

Here's evidence that Hexdees sell themselves, that the way these new type shock absorbers "stop that galloping" indefinitely is a very real service WANTED by motorists. It's evidence, too, that Hexdees are repeaters, that they have profit possibilities, equal to or greater than those of the best items you now sell.

Let us send you a few of the many Dealer letters we are receiving daily, or, better still, ask us for complete merchandising information relating to Hexdees.



Showing the vibration of a dry spring, equipped with a well known shock absorber.



Showing the vibration of the same spring, controlled by Hexdees.

\$14²⁵ \$8⁷⁵

for Complete Set Complete Set for Fords
\$15.25 and \$9.25, Respectively,
Denver and West.

DETROIT STEEL PRODUCTS COMPANY

2286 East Grand Blvd., Detroit, Michigan

Pacific Coast Factory: Oakland, Calif.

Canadian Factory: The B. J. Coghlin Co., Ltd., 2050 Ontario St., E., Montreal

The NEW TYPE LOW COST Shock Absorber

HEXDEES

Designed for Spring Control by the Manufacturers of "Detroit Springs," which are Standard Equipment on over 40 Leading Cars and Trucks

FREE!

**During
August
Only**

Va-Car

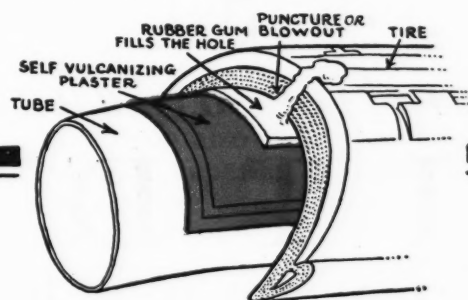
TRADE MARK
REG. U.S. PAT. OFF.

TIRE PLASTER

For every Three Dozen VA-CAR Tire Plasters you buy, your Jobber will give you One Dozen FREE!

If you buy Six Dozen, you get Two Dozen FREE, and an EXTRA 10% DISCOUNT.

You're entitled to free goods. Read it. Big profit on patches — if you act quickly. You know how satisfying VA-CAR is to your customers. Tell your jobber you want yours rushed out or wire us and we'll tell him.

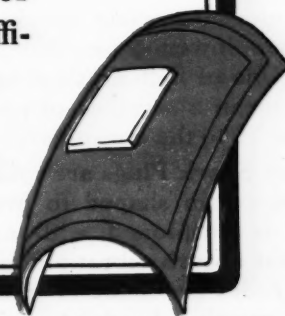


Always
Ready

Never
Fails



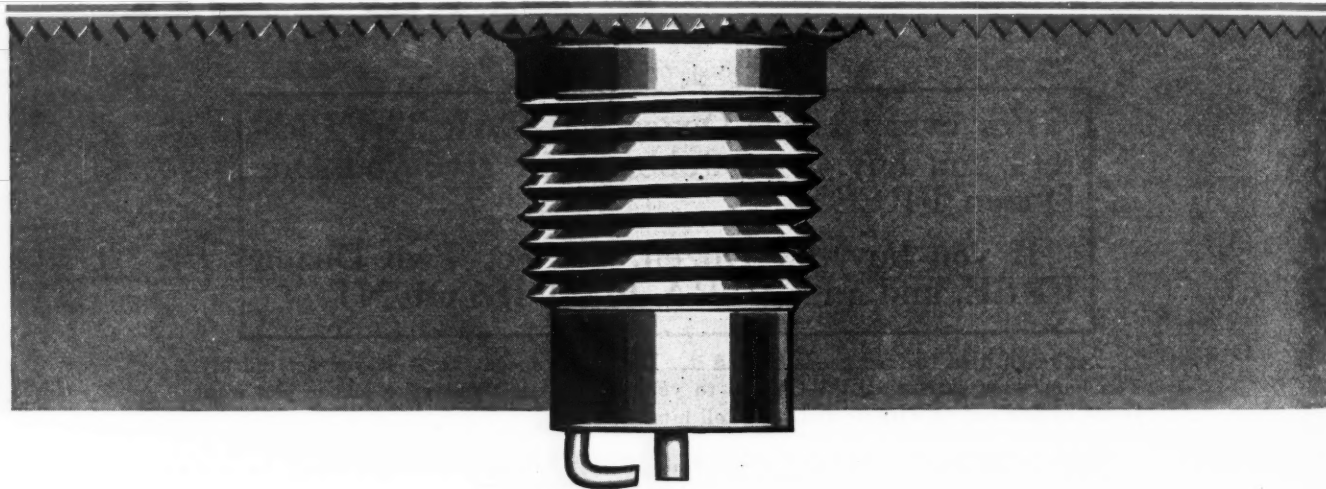
VA-CAR Tire Plaster is the pioneer of self-vulcanizing patches — the most efficient tire repair known, and the fastest selling of all casing patches. Saves temper as well as tires.



VIRGINIA-CAROLINA RUBBER CO.
INCORPORATED
RICHMOND, VIRGINIA



P R I C E D L O W E R



without a sacrifice of quality or profit

S P L I T D O R F

P O R C E L A I N S P A R K P L U G S

ALL Splitdorf Porcelain Spark Plugs retail for fifty cents—at a lower price than any other complete standard line of high-grade plugs, but the low price does not mean a sacrifice of profit by the dealer or lower quality to the consumer.

Splitdorf Spark Plugs are made with insulators of special porcelain shaped to prevent fouling. The insulator is cushioned with copper and asbestos gaskets that absorb vibration and prevent breakage. The electrodes are made of special steel that resists heat or corrosion for long periods of time.

These plugs are manufactured with the same high standards that have made the Splitdorf name on

ignition devices a symbol of dependability the world over.

The attractive low price of Splitdorf Spark Plugs builds good business for the dealer. He can sell a set of new plugs instead of one. The better engine performance, the low price and the high quality of the plugs please the motorist. The dealer sells more plugs and makes more profit.

Splitdorf Spark Plugs are made for every type of engine. Every plug is tested at the factory for mechanical and electrical perfection.

See your jobber. Splitdorf Electrical Company, 392 High St., Newark, N. J. *Subsidiary of Splitdorf-Bethlehem Electrical Company.*



When Ordinary Piston Rings Fail

USE



Prevent

**TAPERING—ROCKING
SLAPPING—RING**

LEAKS and BLOW BY'S

Cork - Sealed Piston Rings produce the perfect seal. They are supported by the cork packing, or sealing gasket and keep the piston true to center in the cylinder. The taper or opening at the top of the piston, is perfectly bridged. Low ring tension eliminates wear on cylinder wall.

Put in the SNAP and Take Out the Slap

Cork-Sealed Piston Rings are real money makers for you. They cut the cost of reconditioning a motor and give perfect satisfaction to the car owner. It is true also that "CORK-SEALS IN TIME SAVE A REGRIND" and experienced motorists are sold on this. Cork-Sealed Piston Rings are effective in old and new cars. The motors will be preserved for the life of the car. Many users report 35,000 to 50,000 miles with one set of Cork-Sealed rings.

De Luxe Relief (Oil) Rings

All motor troubles such as oil pumping, carbon deposits, fouled spark plugs, etc., are eliminated by DE LUXE RELIEF RINGS. This is an oil ring you can well afford to recommend and the price is right.

De Luxe Step-Cut (Plain) Rings

are most effective for general reconditioning. The De Luxe Step-Cut Piston Ring is new and different, unusual tension, finish and flatness, producing power. They sell at *lower prices.*

Cork-Sealed Piston Ring Corp.

2332 S. Michigan Blvd., Chicago, Ill.

Factory—Denver, Colo.

Canadian Distributors:

Cork-Sealed Piston Ring Co.

Toronto, Canada

For your customers who dread steep hills

SELL them a set of Moto Meter self-adjusting Spark Plugs—let them enjoy the experience of real power and pep on the hills.

The .030" running gap of Moto Meter plugs permits the full strength of the ignition current to ignite the fuel in the cylinders most efficiently—this positive ignition means smoothness and power to the engine.

The right mixture of gas and air combined with proper, unfailing spark plug performance means perfect ignition. Every time you sell a set of Moto Meter self-adjusting Spark Plugs you really sell improved motor performance with all the consumer satisfaction that goes with it.

For Fords 75c Other cars 90c Bus & Truck \$1.00
(Heavy Duty)

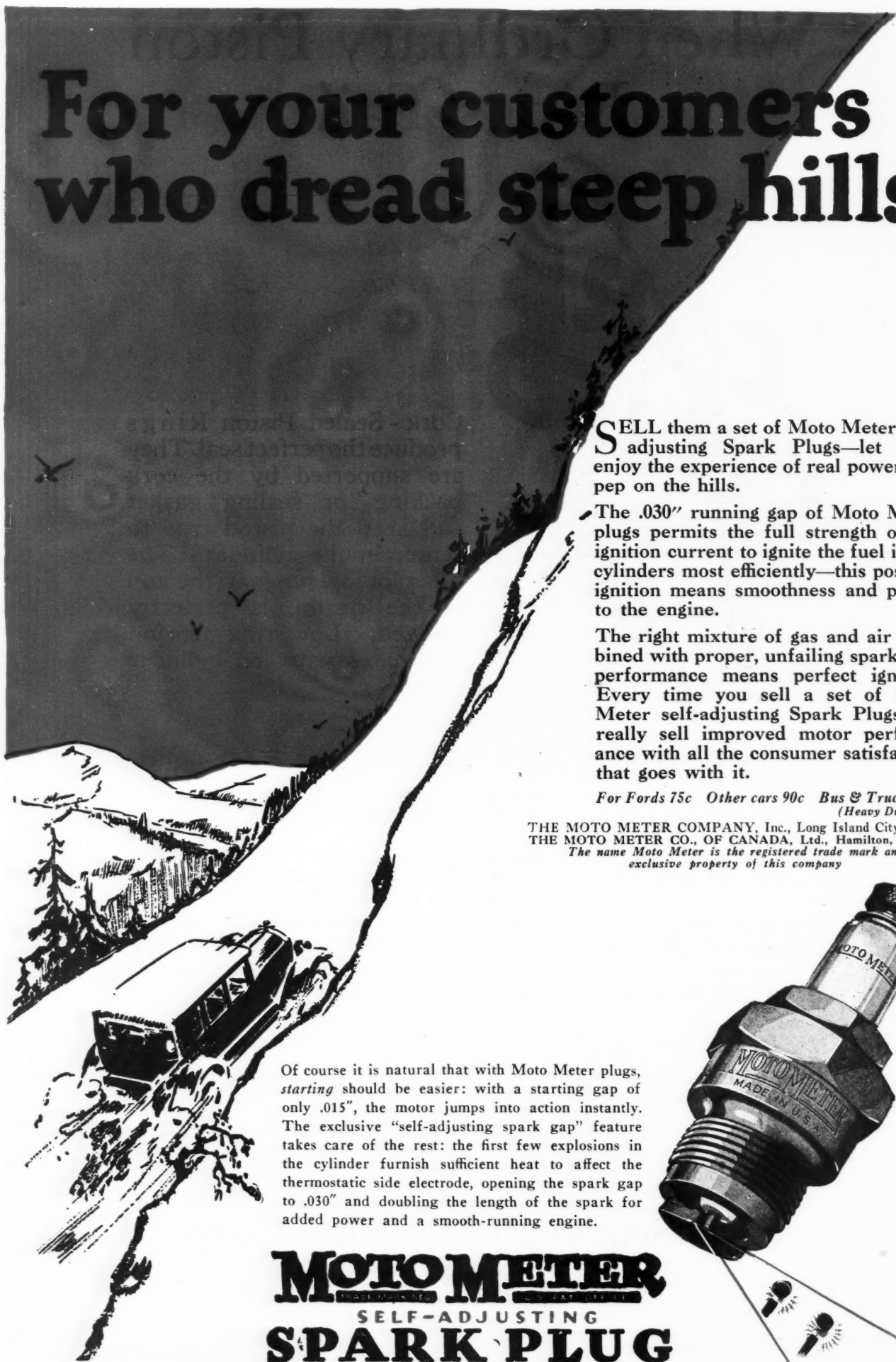
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*The name Moto Meter is the registered trade mark and
exclusive property of this company*

Of course it is natural that with Moto Meter plugs, starting should be easier: with a starting gap of only .015", the motor jumps into action instantly. The exclusive "self-adjusting spark gap" feature takes care of the rest: the first few explosions in the cylinder furnish sufficient heat to affect the thermostatic side electrode, opening the spark gap to .030" and doubling the length of the spark for added power and a smooth-running engine.

MOTO METER

SELF-ADJUSTING

SPARK PLUG



SKY WRITING

Lindbergh Byrd Maitland Hegenberger Acosta Chamberlin

Commander Byrd, New York to Coast of France, Fokker plane, AC Spark Plugs.

Lieutenants Maitland and Hegenberger, Oakland, Calif., to Honolulu, Fokker plane, AC Spark Plugs.

Col. Charles A. Lindbergh, New York to Paris, Ryan plane, AC Spark Plugs.

Clarence D. Chamberlin, New York to Germany, Bellanca plane, AC Spark Plugs.

Commander Byrd, North Pole and return, Fokker plane, AC Spark Plugs.

Chamberlin and Acosta world record endurance flight, Bellanca plane, AC Spark Plugs.



TRAIL BLAZERS OF THE AIR WRITE A MESSAGE FOR YOU

Dealers, tell your customers AC is the plug on which Lindbergh, Byrd, Chamberlin and other great flyers staked their lives.

Tell your customers you can give them the same kind of AC Plugs—same insulation, same quality of elec-

trode, same basic design, that made possible these record breaking flights. If you tell these facts, you can sell an even greater volume of AC Spark Plugs.



**AC Spark Plug Company
Flint, Michigan**

Makers of AC Spark Plugs—AC Speedometers
AC Air Cleaners—AC Oil Filters
AC Gasoline Strainers

AC-SPHINX **AC-TITAN**
Birmingham, England Clichy(Seine), France

Over 200 of the world's most successful manufacturers use one or more, or all of these AC Products
AC SPARK PLUGS AC SPEEDOMETERS AC AIR CLEANERS AC OIL FILTERS

Usual ignition
one single spark

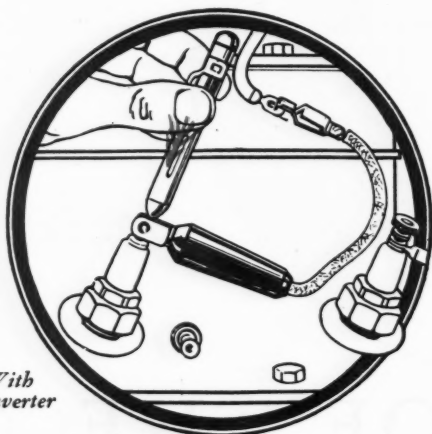
But
There is a difference!
with Lepel Converter ignition—there is
a shower of sparks

The new pocket demonstrator
proves the performance of the

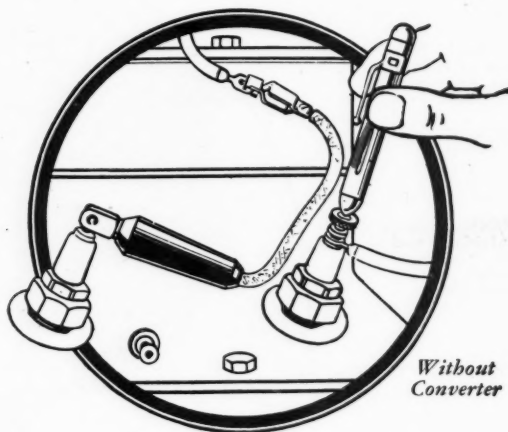
LEPEL CONVERTER

Do This:

Detach cable lead from one spark plug, clip device into cable, and then attach Converter to plug. Start motor — place point (CUT) of tester on spark plug terminal. See the FLASH —compare it with the normal flash!



With
Converter



Without
Converter

Now:

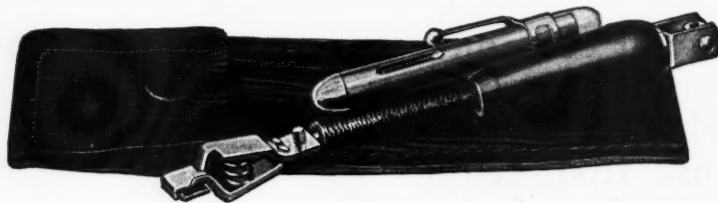
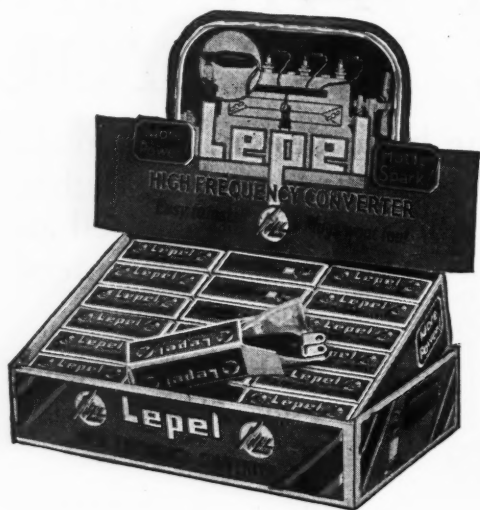
Remove tester — place it on another plug without the Converter. Note the *difference* in flash!

* * *

The comparison between the two effects shown gives you an eye-picture of the beneficial action of the Lepel Converter. The strong flash is due to utilizing the *entire* energy in a *shower* of initial sparks, giving a Hotter Spark—Sure Firing—Less Fouling—Easier Starting—Lower Idling Speed—Quicker Pick-up—Better Acceleration—Improved Ignition Performance!

The Lepel Converter has nothing in common with the so called Spark Intensifier Gap.

This Lepel Pocket Demonstrating Device is now available for all dealers. Get in touch with your jobber—NOW!



LEPEL IGNITION CORPORATION
117 WEST 63rd STREET, NEW YORK CITY

The Hutto Kit *opens*

The way to
New and
Greater Profits



The Hutto Kit opens the Way to New and Greater Profits

The responsibility of the Hutto Engineering Company does not cease with the sale of its products. It is the policy of this company to give its patrons first aid by showing them how to increase their business and profit from the daily grind.

Therefore, the HUTTO KIT of merchandising ideas has been prepared for you, consisting of newspaper advertisements, letters and a series of direct by mail pieces, backing up the HUTTO PROCESS of refinishing cylinder bores, with a resultant increase in business for you.

*The HUTTO KIT will
be first aid in producing
a larger volume of business
—it is yours for the asking.*



HUTTO ENGINEERING COMPANY INC.

515 LYCASTE AVE. DETROIT

Profit From The Daily Grind



Get the Edge on Cylinder Regrinding by the use of the HUTTO PROCESS

Grind your axe—cut loose from old methods—both in business and equipment—use the HUTTO PROCESS—get the edge on the regrinding business in your locality by telling and selling prospective car owners—you too, will *Profit From the Daily Grind.*

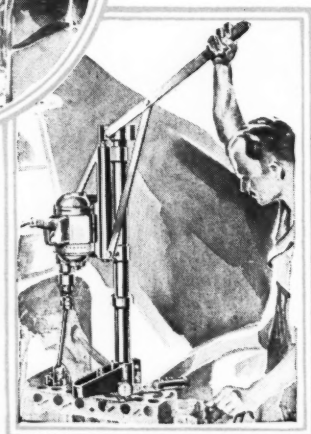
Write for booklet ~ *HOW TO GET
Profit From the Daily Grind*

HUTTO ENGINEERING COMPANY INC.
515 Lycaste Avenue • Detroit, Michigan



Thousands of service stations use the Hutto Twin Three Grinder.

The Hutto Process of Cylinder regrinding is used and endorsed by 85% of the manufacturers.



Merchandise your service—cash in on your equipment—our service department can help you.

A M E R I C A ' S F I N E S T T Y P E O F M O T O R

The Future For Knight-Engined Cars

No basic development in automobile design in recent years has stirred the engineering and manufacturing division of the automobile industry so much as the great strides that are being made in the progress of the Knight engine.

There is a growing public demand for the advantages of smoothness, efficiency, long life and freedom from carbon annoyance and mechanical trouble found only in this type of motor.

For years to come the demand for cars powered by the famous Knight engine will continue to grow at a rapid rate.

Falcon-Knight is the only six-cylinder, Knight-engined car in the \$1000 price group.

FALCON MOTORS CORPORATION · DETROIT

Falcon-Knight



Is Something for Nothing Always "Worth Just That"?

IT occasionally happens that the manufacturer of a product that is good, elects to introduce it by the distribution of free samples — or by the method of a free trial with returning privileges included.

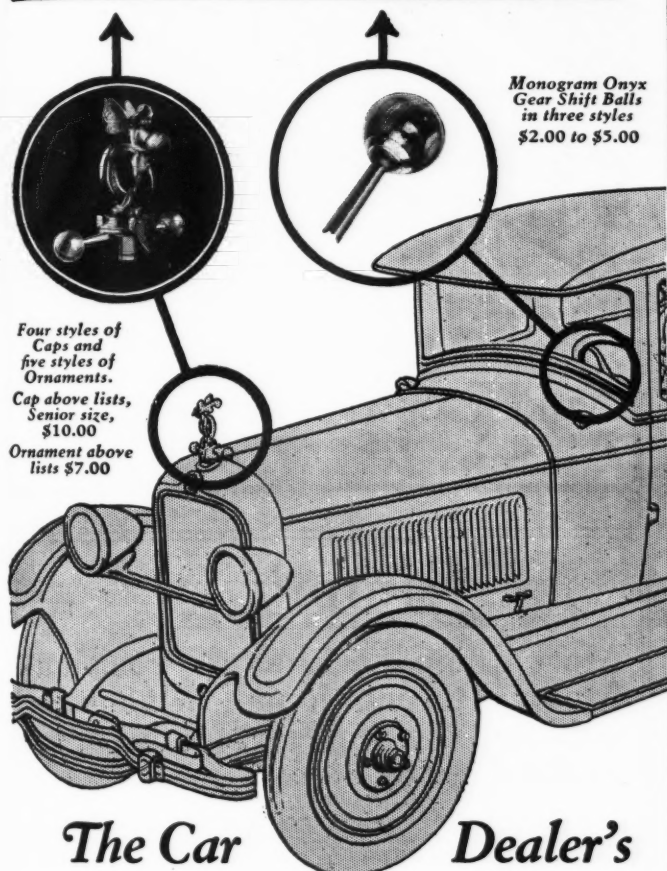
This does not mean that the manufacturer is giving his product away, nor should the free feature belittle it in the minds of the trade.

The cost of free samples and free trials is legitimately charged to marketing expense — and should reflect the manufacturer's confidence in his product to satisfy, and make good.

MOTOR AGE

Chestnut and 56th Streets
Philadelphia, Pa.

ACCESSORIES	LIST	COST	PROFIT
Bumpers	\$ 25.00	\$15.00	\$10.00
Step Plate	3.00	1.80	1.20
Tire and Tube	18.00	12.00	6.00
Tire Cover	2.00	1.05	.95
Clock	12.00	7.20	4.80
Spot Light	10.00	6.00	4.00
Cigar Lighter	5.00	3.00	2.00
Heater	5.00	3.00	2.00
Tire Lock	3.00	1.80	1.20
Chains	5.00	3.00	2.00
Moto Meter	5.00	3.00	2.00
MONOGRAM Locking Gear Shift Ball	2.50	1.50	1.00
MONOGRAM Ornament No. 3	3.00	1.80	1.20
MONOGRAM Junior Locking Cap	6.00	3.60	2.40
Average Totals	\$104.50	\$63.75	\$40.75



The Car Dealer's opportunity for greater profits

If you are to make more than 1.6% profit on car sales (after deducting used car losses) you must sell more accessories. This is what your own National Car Dealers Association tells you. They also tell you that, dollar for dollar, accessories net you 11%, as against 1.6% from car sales.

Estimate from the above

table what you can make on accessories in one year—even on a conservative basis. Let us send you illustrated literature covering Monogram Locking Radiator Caps, Monogram Onyx Gear Shift Balls, and Monogram Radiator Ornaments. Let us furnish you with imprinted literature for mailing and giving out to prospects.

THE KINGSLEY-MILLER COMPANY

Chicago, Illinois

Watch for our big direct-mail campaign

Your Copy of This Book!



IT'S FREE
SEND FOR
IT TODAY

B. C. Ames Co. Waltham, Mass.

B. C. AMES CO.
Waltham, Mass.

Please send me your FREE Instruction Book about testing and measuring cylinders.

Name

Address

.....

MA-8

More Than a Pound of Cure!

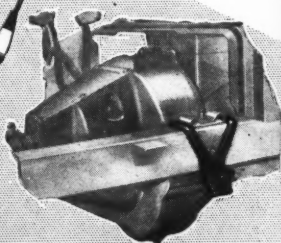
The old ounce of prevention becomes more than a pound of cure when you sell your Ford customers Pioneer Engine Supports. You give them a cure for excessive vibration, rattles, squeaks, oil leakage and broken crankcase arms. A Pioneer Engine Support around the flywheel housing keeps down repair bills and earns you the gratitude of every Ford owner who buys one from you.

Let our dealer help work for you. Write today, and we'll tell you about them.

Pioneer Engine Support

(Trade Mark Reg.)

Pioneer advertising in Country Gentleman, Farm Life and Progressive Farmer reaches 3,000,000 Ford owners—your prospects.



Pioneer License Plate Brackets



Fasten onto front and rear bumpers.

A great convenience when replacing license plates.

Furnished in japanned or nickel-plated finish. Japanned, 50c pair; nickel plated, 75c pair.

Pioneer Replacement Windows for Fords



Installed in 20 minutes. Simply constructed. Heavy, clear glass. Rich black enamel frame. Makes a tight, rattle-proof window. Made by one of the oldest established replacement window manufacturers. Catalog sent free.

Our dealer proposition is an attractive one that will net good profits. Are you on our lists?

The Brewer-Titchener Corporation

108 Port Watson St.

Cortland, N. Y.

Press the Button OPEN YOUR DOORS

ELECTRICALLY

with

American

ELECTRIC

DOOR CONTROLS

—From any or as many stations in your garage as you care to install. American Door Controls are extremely simple, sturdy, dependable. Anybody can install them —only six or eight screws required. Built to last a lifetime. LOW IN PRICE.

Send for
Bulletin
on American
Color
Flood Lights

Send for information

AMERICAN APPLIANCE CO., Inc.

Kalamazoo, Michigan

Simplicity

REG. U.S. PAT. OFF.

Most Complete Line of Precision Motor Reconditioning Machines Sold by Any Single Manufacturer in the United States.

CYLINDER Reconditioning — SIMPLICITY REBORER

AND GRINDER gives you the best chance to win out—positive accuracy, earning power and a business getter. For filling "scores" in cylinders we recommend SIMPLICITY "SCORE" FILLER.

VALVE RECONDITIONING — For reconditioning valves we have *Simplicity Valve Grinder — Hub City Valve Seat Replacement Tool* and *Simplicity Reseating Cutters and Pilots*.

CONNECTING ROD RECONDITIONING — Green Bros. Rebabbiting and Bearing Fitting Machine—Green Bros. Electric Reamer Drive with foot control.

MAIN BEARING RECONDITIONING — Hub City Main Boring Tool—Simplicity Crank Pin Tool.

PISTON RECONDITIONING — Simplicity Piston Grinder—Green Bros. Electric Reamer Drive with foot control.

PRECISION GAUGES — Complete line of micrometers and gauges of all kinds.

Write for Catalog "D"

SIMPLICITY MANUFACTURING CO.

20 South Pierce St.

Port Washington, Wis.



If It's A Fine Car —

If it's a car of superior quality, it probably has B. C. A. Bearings at the points where the loads are heaviest. Yet B. C. A. Bearings are not too expensive to be used in cars in the lower price fields. Wherever used they give years of satisfactory and trouble-free service.

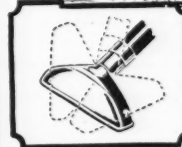
We specialize in solving difficult bearings problems.

Bearings Company Of America
Plant Lancaster, Penna.
Detroit Michigan Office 1012 Ford Building.

*You've never seen
anything like it!*



Port-o-Vac



combines the portability of the small, low powered cleaner with the powerful suction of the large household machine. You've never before seen a cleaner like it—and it's exactly what you need.

PORT-O-VAC carries a full size $\frac{1}{8}$ H. P. General Electric universal motor—the same as a large household machine—yet it is light and easy to handle in the smallest car. The telescoping tube extends to 32" in length and the universal nozzle can be turned to any position.

Every garage, auto dealer and wash rack needs PORT-O-VAC as regular equipment. It builds good will and increases business. If your jobber can't supply you, use the coupon and we will ship direct at \$39.50, less the usual discount.

Order Today!

use the Coupon...

Johnson
MOTOR PRODUCTS CO.
308 NORTH SHEDDEN ST. CHICAGO

Johnson Hub Bearing LUBRICATOR
One of the season's fastest selling items—sales more than doubled this year. High pressure lubrication in two minutes. Equipped with genuine Alemite fittings. Packed in handsome counter display carton.

Fords 80c, Chevrolet and Pontiac 85c
Complete with fittings installed

Johnson Motor Products Co.
308 No. Sheldon St., Chicago.
Gentlemen: Please ship one Port-O-Vac at \$39.50 less my discount and bill thru our jobber.

Name.....
Address.....
City.....State.....
Jobber.....

M. A. 8

Did You Enjoy This Copy?

YOU can get one like it every week for only \$3.00 a year—an average cost of a little less than six cents each.

Each and every man in the trade needs MOTOR AGE—needs the

positive help it offers in the solution of daily problems and the valuable ideas it gathers for its readers.

Your competitor reads MOTOR AGE, and you need to read it also if you want to keep up with the leaders of the automotive field.

Here's How MOTOR AGE Will Help You

SERVICING —MOTOR AGE will show you how to make flat rates—How to sell Service—How to make customers permanent—How to organize a workshop—How to handle knotty problems—How to select Machinery—How to test electrical systems—How to make quick repairs—How to route shop work.

HIRING —How to get the right men—How to train them—How to pay them—How to get their co-operation—How to keep them enthusiastic.

BUYING —How to select an accessory stock—How to judge merchandise—How to get a fast turnover—How to avoid dead items.

SELLING —How other men do it—How to keep down overhead—How to advertise—How to make Salesmen produce—How to create a market—How to find prospects—How to make every sale pay—How to avoid losses—How to write letters that build business.

AND THEN . . .

Whatever else you need to know to make your business run smoothly MOTOR AGE will tell you if you only ask—All personal inquiries receive personal attention from our editors. Every subscriber is encouraged to come to us with his problems, whether mechanical, legal, architectural or financial. Try us, and we will give you "Service you will like."

THE COUPON is here for your convenience. If you are already a subscriber, pass it on to some friend in the trade who is not. When he starts getting MOTOR AGE he'll appreciate the favor.

MOTOR AGE
Chestnut and 56th Streets
Philadelphia, Pa.

IMPORTANT—MOTOR AGE is published exclusively for the trade. Subscriptions are accepted only from those actively engaged in our field—so please don't forget to include your business card or letter head with this order.

Gentlemen: Enclosed find \$3.00 to pay for a year's subscription to MOTOR AGE, including all special issues published during the life of my subscription.

Name.....

Street and Number.....

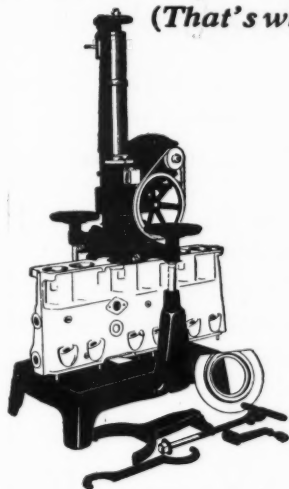
City.....State.....

Firm Name.....

NOTE: If you are already subscribing to MOTOR AGE, please hand this coupon to a dealer who is not. He'll become a better competitor from reading MOTOR AGE.

STORM CUTTER HEADS DO NOT FOLLOW WORN CYLINDER WALLS

(That's why *STORMIZED* cylinders are *SQUARE WITH THE CRANKSHAFT*)



Whether you rebore your cylinders in the chassis or out of the chassis, you're sure of an accurate, square with crankshaft job. This is Model M—one of four Storm models.

WHEN cylinders, from the action of bent or twisted connecting rods, wear out of square with the crankshaft (and fully 90% of the motors needing reconditioning have one or more of the cylinders worn out of square) they need a machine that will correct this error—establish new bores **SQUARE WITH THE CRANKSHAFT**. "Self-aligning" tools, because they follow the worn walls of the cylinder, and are not rigidly guided, will not overcome this inaccuracy.

In **STORMIZING** the *unworn* horizontal face of the block is used as a positive pilot for accurate alignment. The **STORM** clamps on the *unworn* face. When the cutter head on the end of the rigidly guided boring bar mills down, it cannot follow the worn cylinder, but establishes a new bore that is round, free from taper and **SQUARE WITH CRANKSHAFT**. All cylinders of the block are uniform in size.

All of this accuracy is built right into the **STORM** machine, and is not dependent upon the operator—who has only to set the cutter head at the desired cylinder oversize, center and clamp the **STORM** in place.

The profits in **STORMIZING**, ease of operation and the entire method is explained in our booklet "Stormizing As A Business and Process." A copy will be sent you free of charge upon request. Write for it today.

STORM MANUFACTURING CO., Inc.

MFRS. OF
STORM RITEWAY CONNECTING ROD AND PISTON ALIGNER
STORMIZING EQUIPMENT
STORM HONES

406 (A) 6th Ave. So.

MINNEAPOLIS, MINN.

STORMIZING

THE ACCURATE METHOD OF CYLINDER RENEWING

*There are Profit Making Ideas
in Every Issue of*

MOTOR AGE

Many subscribers of **MOTOR AGE**, who realize the value of its contents each week, route every issue regularly through their places of business to all departments.

As a means of business-building this is a profitable habit to encourage, both for the benefit of the organization and its individual members. It is always best to read **MOTOR AGE** every week.

MOTOR AGE

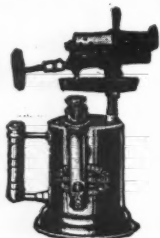
CHESTNUT and 56th STS.

PHILADELPHIA, PA.

Made Especially for Garage Use

No. 79 and No. 80

"Always Reliable" Torches



Patented
No. 79 Qt. No. 80
Pt. Gasoline—Kerosene.

Practical, durable and economical torches for all around use.

The "Always Reliable" torches and furnaces are made in all sizes and grades. Ask for catalog.

Most jobbers stock. Others will order.

OTTO BERNZ CO., Inc., Newark, N. J.

Stocks in Newark, N. J., New York City, Chicago and San Francisco.

Offices in Newark, N. J., New York City, Chicago, Fort Worth, Denver, Helena, Mont., San Francisco, Los Angeles, Seattle and St. Thomas, Ont.

SIMPLEX Piston Rings

trap oil in the ring grooves instead of draining it away or scraping the cylinder walls dry. The staggered slots give pressure lubrication to the cylinder wall, minimize friction and increase power. No oil pumping, piston slap or compression loss.

Send for the Simplex Method of reconditioning motors without cylinder machinery, and make more money.

**The Simplex Piston Ring Co.
of America, Inc.**

1971 East 66th St., Cleveland, Ohio

New DOVER FLEXO SERVICE CAN



In 2 capacities: 2- and 5-gal. Prices \$3.50 and \$5

Saves Your Time

The New Dover Flexo Service can speeds up sales, and makes your time productive.

Customers like the service it gives because it is clean as well as quick and convenient for you.

Flexible pouring tube stores away inside can when not in use.

Dover Stamping & Mfg. Co.

385 Putnam Ave.

Cambridge, A, Mass.

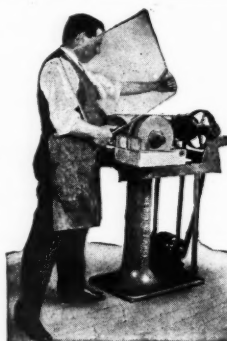


Figure This Out Yourself

Motor Age in a recent article states that more than \$31,000,000 will be spent during 1927 to replace broken auto body glass and windshields. If you secure only a part of the work done in your neighborhood you will make a good profit. Lange Glass Edging Machinery enables any shop to secure this business.

Henry G. Lange Machine Works

166 NORTH MAY STREET, CHICAGO



FREDERICKS Rewinds

New low prices: Rewinding or exchanging any two unit type of automobile generator or starter armature, \$2.50. Any type of Ford armature \$1.50. Special prices on Ford armatures in quantities.

H. M. FREDERICKS CO., Look Haven, Pa.

STATE AUTO TRUNKS

2011-13-15 S. STATE ST.
CHICAGO, ILL.

Wide assortment of automobile trunks for various model cars. Absolutely new stock, each

Wire or write today for New and Used TIRES—PARTS—ACCESSORIES—"If its for an Automobile We Have It." **\$9.95**

Weidenhoff Shop Equipment for Battery and Electrical Service

4358 Roosevelt Road Chicago, Illinois

NORTH EAST The Equipment That Lasts

Bigler MOTOR BETTER BUILT TRUNKS

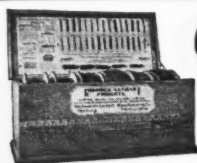
Motor Trunks, Racks and Equipment exclusively. All types and styles. Genuine Duco finish, or bright black. A money-making line. Write.

BIGLER MANUFACTURING CO.
CHIPPEWA FALLS High St. WISCONSIN

WE MAKE RADIATOR CORE MACHINERY

Write for Catalog and Prices

RADIATOR ENGINEERING CO.
FACTORIES BLDG. TOLEDO, OHIO



GOODRICH-LENHART CABLE KIT

Displays six starting, lighting, ignition, and radio cables. Puts them right where they sell with little effort. On spools—no loose ends. Also displays actual samples of full G-L line. Kits are supplied through all G-L Jobbers. Write for price and name of nearest jobber!

Goodrich-Lenhart Mfg. Co.

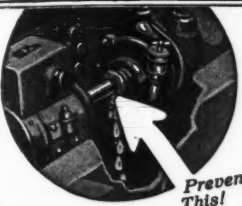
Hamburg, Penna.

Two Hones in One

HALL HONE


\$39.75
at your Jobber's

Solid Pressure — Spring Pressure



It's a Permanent Repair!
Have a can of CONNEAUT PLASTIC METALLIC PACKING in your garage and be ready for the fellow who says he can't keep his water-pump from leaking. All sizes in one can. Stocked with your Jobber.
1 lb. can\$1.75 per lb.
5 lb. can1.60 per lb.
Manufactured by
THE CONNEAUT PACKING COMPANY
Conneaut Ohio

Prevent This!



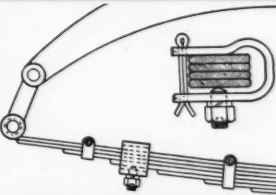
Tasco
TRADE MARK REG.
Gas Gauge for Ford
Chevrolet—Overland—Star
Sells quick at \$1.25 retail. Types "K" and "J" for 1926 Chevrolets and all Stars sell at \$1.50.
THE AKRON-SELLE CO.
AKRON, OHIO



Orrville Spring Governors
Make Smooth-Running Profits
Among the foremost popular sellers for easier riding. Simple in operation and easy to install. Check the rebound and control the springs against "galloping". Ask for illustrated literature and discounts worth while.
ORRVILLE SPRING GOVERNOR CO., INC.
500 Brant Bldg. Canton, Ohio

Pat. Pending

A \$9.50 Sale in 30 Seconds
Simplex Shock Absorbers are practical. The retail price provides a generous profit for you. Fits any car, put on in a moment by customer. Write for prices and full information.
Simplex Shock Absorber Co.
Sharon, Penna.



STANDITALL
AUTO RADIATOR

Damageproof against repeated boilings and freezings. Built to last the full life of the car. Complete radiators for Fords, Chevrolets, Dodges and Maxwells. Cores for all cars and TRUCKS. If not at your jobber's, write direct.
J. C. Black Mfg. Co., Inc., Oil City, Pa.

BELLEVUE
Trunks, Trunk Carriers, Pumps, Bumpers, Jacks
See our combination trunk, trunk carrier, spare tire carrier and bumperette. COMPLETE line for all cars. Write for prices and nearest jobber.
THE BELLEVUE MFG. CO.
Bellevue, Ohio



Now--5 Different Oversizes
to every standard size and type of Piston Pin—in stock, waiting for your telegraphic order.
THOMPSON PISTON PINS
Defiance Ohio

SAVES TIME
Tests Compression
Locates all knocks, leaky valves and rings
Locates Piston Slaps
Eliminates guesswork
SELLS MORE JOBS
If your Jobber cannot supply you, write us.
HAMMETT MFG. CO., Kansas City, Mo.
HAMMETT MOTOR TESTER




EATON SPRINGS
FOR REPLACEMENT
STANDARD EQUIPMENT ON AMERICA'S LEADING CARS AND TRUCKS
THE EATON BUMPER & SPRING SERVICE CO., Cleveland, Ohio

CELORON
TIMING GEARS
Save every part of the Timing Mechanism from the wearing effects of vibration and shock
The Celoron Company
Division of Diamond State Fibre Co.
Bridgeport, Pa.



Arrow Head
Pistons
Piston Pins
Axle and Drive Shafts
Dependable Products

PISTONS FITTED WITH PINS
Arrow Head standards are the same for both equipment and replacement. The motor's reputation in the field must be carefully maintained.
ARROW HEAD STEEL PRODUCTS COMPANY
Buffalo Minneapolis, Minnesota Chicago
Axle and Drive Shafts



Fostoria Fenders
Repair Shops equipped with the Fostoria Fender Wall Chart can get immediate fender service from the nearby Fostoria Distributor. No waiting. More profit. Pleased customers. The Wall Chart is Free. Write for it today. Dept. A-8.
Fostoria Pressed Steel Co.
Fostoria Ohio

WEL-EVER
"OIL CONTROL" PISTON RINGS
The Motor Necessity That Has Made Good
Backed by Seven Years' Satisfactory Service
THE WEL-EVER PISTON RING CO., TOLEDO, OHIO
Sold most everywhere. If your dealer cannot supply you write us.



Every year more motorists are saying...
Goodbye, buggy wheels
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WHEEL COMPANY
Philadelphia • Detroit

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Ten cents a word is the rate for all undisplayed advertisements set solid, regular want ad style; minimum charge \$1 an insertion. All capitals, 12c a word; all capitals, leaded, 15c a word. Payable in advance.

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MODERN one man Type Hispano-Suiza dirt track Race Car, very fast. \$1,500 cash or terms. Zeke Meyer, 629 E. Stafford St., Germantown, Pa.

To locate business opportunities
To sell, rent, exchange or buy
To find men or employment

THE CLASSIFIED DEPARTMENT
WILL HELP YOU

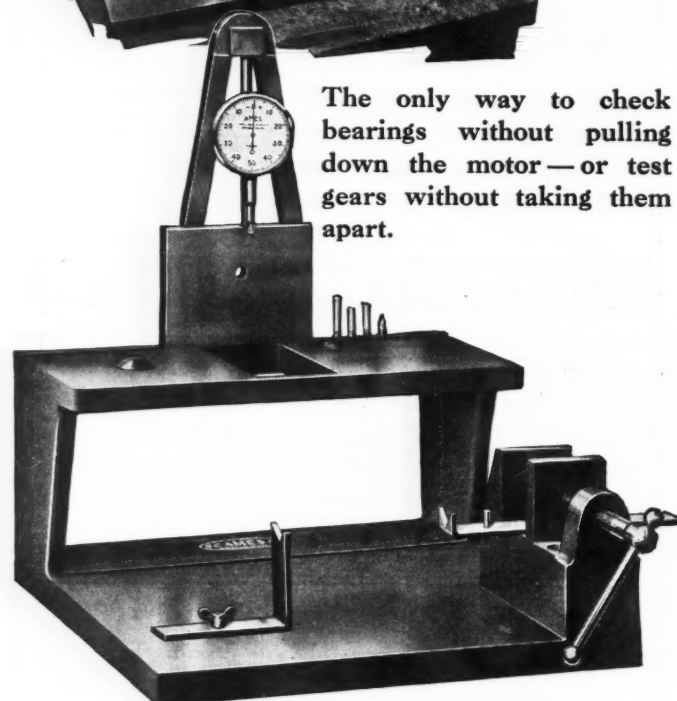
C. L. PARKER

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Attorney-at-Law and Solicitor of Patents
McGill Building, Washington, D. C.
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The New Ames Test Bench



For testing every step of piston and valve re-conditioning.



The only way to check bearings without pulling down the motor—or test gears without taking them apart.

Checks up every knock in the motor or every hum in the gear assemblies. Proves the wear and shows what needs to be done. Helps beat the flat rate.

Ask your Jobber or send for information about this new tool today.

B. C. Ames Co., Waltham, Mass.

B. C. Ames Co.,
Waltham, Mass.

Send me complete information about the new Ames Test Bench

Name

Address

MA7

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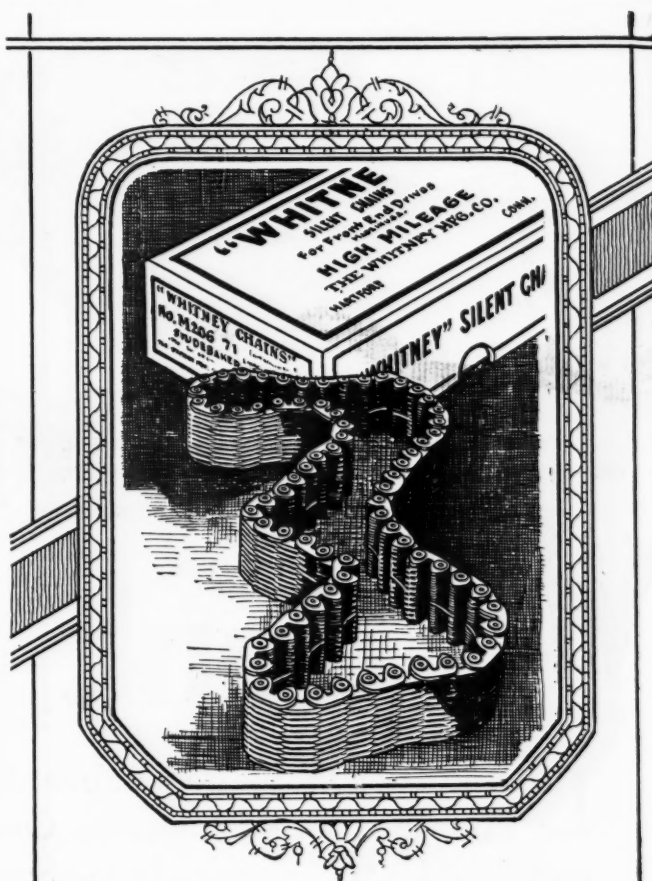
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NOTHING

is more essential for smooth, quiet and powerful operation of a motor than a perfectly operating timing chain drive.

Drivers who know insist on replacement with "WHITNEY" SILENT CHAINS.

Service men who are out to build customer-satisfaction install them because they are

**QUIET and PERMANENT
REPLACEMENTS.**

WHITNEY
SILENT  TIMING
CHAINS

**THE WHITNEY MFG. CO.
HARTFORD, CONNECTICUT**



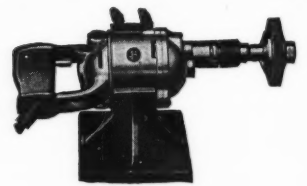
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The popular 3-ball-bearing drill. Handy and practical for hole drilling in close corners. Operates at 1,000 r. p. m. under full load. Weighs only 5 1/4 lbs. Can be supplied with grinding, post or bench drilling stands at extra cost. **\$30**
Drill only.....



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Oldest Builders of Electric Drills and Grinders in the World

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**Portable Electric Drills
Grinders—Polishers**

Export Sales Representatives—WESTINGHOUSE ELECTRIC INTERNATIONAL CO.—150 Broadway, New York City

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Pneumatic Tire Inspector

Operated by your tire inflation system. No manual effort required—merely turn valve to separate tire

Can be used for inspecting inside or outside of tire. Enables you to quickly and easily find and remove from the casing the cause of a puncture and to locate breaks in the lining of the casing.

Pays for itself in its saving of time and effort.

Handles high pressure tires up to 6 inches and balloon tires up to 8 inches.

WORK ILLUMINATED

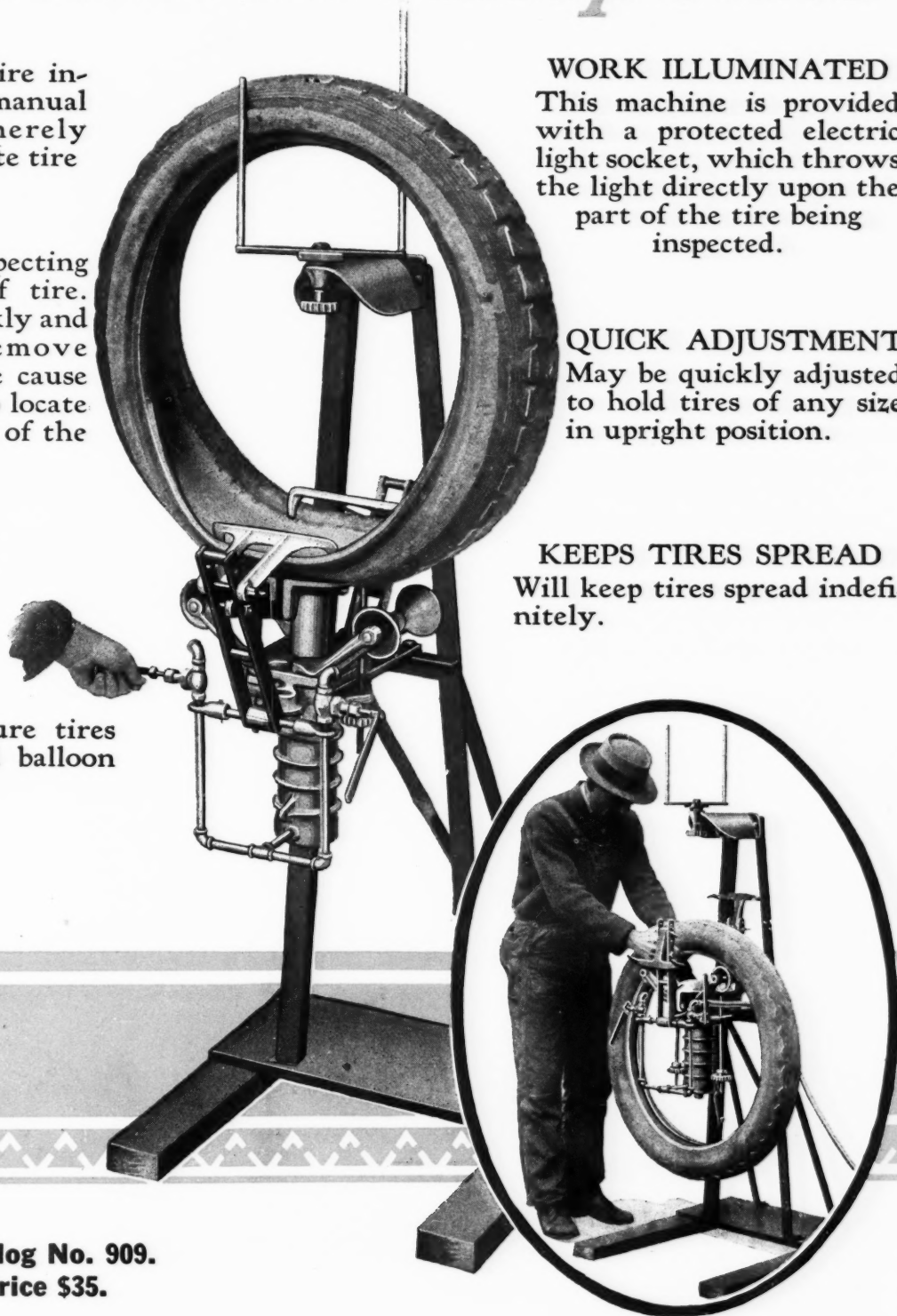
This machine is provided with a protected electric light socket, which throws the light directly upon the part of the tire being inspected.

QUICK ADJUSTMENT

May be quickly adjusted to hold tires of any size in upright position.

KEEPS TIRES SPREAD

Will keep tires spread indefinitely.



Catalog No. 909.
Price \$35.

MANLEY MFG. CO.,

YORK, PA.

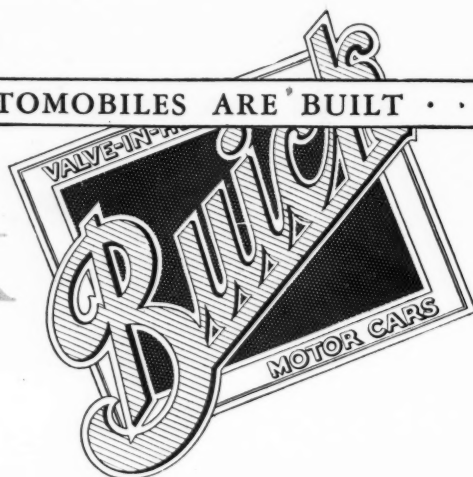
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Millions crowd Buick showrooms!

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WHEN BETTER AUTOMOBILES ARE BUILT . . . BUICK WILL BUILD THEM

BUICK



for 1928

*Those who desire the Buick Franchise
Should Have Their Names on File*